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STANDARDS
FRANK M. McMURRY

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PAUL H. HANUS

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THE School Efficiency Series comprises about ten volumes by as many educational experts on Elementary School and Kindergarten, High School, and Vocational Instruction, Courses of Study, Organization, Management and Supervision. The series is based on the New York City School Inquiry, but the controlling ideas are applicable as well in one public school system as in another.

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SCHOOL EFFICIENCY SERIES

Elementary School Standards

Instruction : Course of Study : Supervision

Applied to New York City Schools

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Edited by **PAUL H. HANUS**

Elementary School Standards

Instruction: Course of Study: Supervision

Applied to New York City Schools

By **FRANK M. McMURRY, Ph.D.**

**PROFESSOR OF ELEMENTARY EDUCATION, TEACHERS COLLEGE
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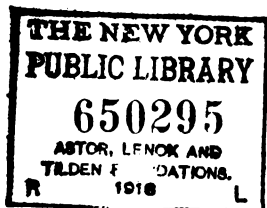
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EDITOR'S PREFACE

THE problems dealt with by Professor McMurry in this book cover one of the most important fields included in the New York City School Inquiry. His task was to arrive at a just estimate of the quality of the teaching, the course of study, and the supervision by the principals in the elementary schools. This task naturally led him to formulate standards of value, whereby the work of the elementary schools could be appraised.

Rejecting the usual examinations as inadequate and unsatisfactory for his purpose, Professor McMurry has judged the quality of the teaching, course of study, and supervision by the degree to which all three are controlled by purposes of recognized value in daily living. His formulation of the standards on which his judgments are based and his detailed descriptions of the application of those standards to the actual work of the schools will be useful, we believe, to earnest teachers everywhere. Professor McMurry did not attempt to make these standards all-embracing, but they are so fundamental to satisfactory plans and procedure in elementary school work that, whatever limitations as to scope and variety they may possess, all good elementary schools must conform to them. Further, they point the way to progressive improvement where improvement is desirable.

This book is, accordingly, not merely a report made by one of my associates in the New York City School Inquiry; it is a contribution to the professional resources of teachers and supervising officers wherever their lot may be cast. Though essentially Professor McMurry's report as submitted to me and by me submitted to the Committee on

School Inquiry, the report as here printed has been subjected to important revisions in form and, to a slight degree, in substance — revisions which were impossible under the conditions which governed the preparation and publication of the draft submitted to the Committee.

The book does not attempt to illustrate accurate measurement of educational results. It is scientific only in so far as it brings to bear organized knowledge and insight on an educational problem. Scientific measurement in education is, indeed, as yet too little developed to be applied to more than a very limited portion of the work of the elementary schools. Except for arithmetic and penmanship, "standard scores" or standard achievements are not available for measuring the quality of the results actually attained by the schools; and even for penmanship and arithmetic, the standard measures for each grade are not yet firmly established. Moreover, purposes must be formulated and incorporated into practise before any results to be measured can be expected. Scientific measurement of results will therefore always presuppose clear conception of the purposes to be realized; and the formulation of these purposes will always continue to be essential to efficient practise. The extent to which these purposes are realized falls within the province of exact measurement; but, as has been said, without these purposes there is nothing to measure, and the methods of exact measurement are still in process of evolution. It is worth noting, however, that the conclusions in relation to ability in reasoning and computation in arithmetic arrived at by Professor McMurry have been confirmed by exact measurement, so far as it was possible to apply exact measurement, by Mr. Stuart A. Curtis, who is expected to contribute a later volume to this series.

PAUL H. HANUS.

HARVARD UNIVERSITY,
April, 1913.

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Standards and Instruction

STANDARDS FOR INSTRUCTION COURSES OF STUDY AND SUPERVISION

CHAPTER I

STANDARDS IN GENERAL

INADEQUACY OF CUSTOMARY KNOWLEDGE TESTS AS A MEANS OF JUDGING INSTRUCTION

IT is customary to judge the quality of instruction by direct examination of children in subject-matter.¹ For instance, they are asked to state the causes of the Revolutionary War; to tell who is the Vice-President of the United States; to name and locate the capitals of California and Kansas; and to make an outline drawing of South America. If most of such questions are correctly answered, the instruction is called good; if not, it is rated as poor.

The acquisition of knowledge is, of course, one of the

¹ Attention is called to the fact that no attempt is made here to pass judgment upon the entire work of the kindergartens and elementary schools. The topic under investigation is the *quality of instruction* alone. There are aims of the school not fully included in the aims of its teaching, and there are important means for their accomplishment besides instruction,—such, for example, as the personal influence of the teacher. The investigation has been thus limited, with the idea that if this one broad topic were properly treated, more would be accomplished, considering the time and energy at our disposal, than if the entire field were covered.

Twelve persons have shared actively in the collection of data on which this portion of the report is based, visiting at least sixty schools in the boroughs of Manhattan, The Bronx, Brooklyn, and Queens. Altogether not less than three hundred lessons were seen, in the majority of which the observation covered all or most of the period. In addition, many teachers and principals (not less than one hundred in all) have been consulted at length as to the quality of the instruction and the conditions determining it.

prominent aims of the school, and it should be considered in any careful investigation of instruction. But as the sole or principal test for judging instruction, it is inadequate for several reasons.

In the first place, the results depend too much upon accidental conditions, such as recency of review of the particular facts called for, or freedom from embarrassment or excitement.

In the second place, the customary examination is too superficial and narrow a test of knowledge. It is superficial because the good memory which enables one to reproduce facts, digested or undigested, is at a premium and often allows the thoughtless child to lead the class. It is narrow because the subject-matter of the studies is by no means all that one needs to know. Knowledge of right methods of work is probably more important. An enlightened professor in college is more interested in giving his students the proper method of studying the subject than a mere knowledge of it; and right methods of study are even more worthy of attention in the elementary school, because it is there, in the main, that right mental habits are acquired, if ever, by the great majority of our population.

In the third place, even if the customary examinations fairly tested the understanding of facts, such understanding is still not the most important of the things expected from instruction. There are several things above and beyond knowledge which instruction, according to its degree of excellence, does or does not include. Partly because the customary examinations fail to give information about these higher results of teaching, they do not alone constitute a satisfactory test.

Finally, such tests are unsatisfactory because at best they do little beyond revealing the present aims and results of the instruction. This investigation has not been undertaken solely with the idea of discovering present conditions. It has been undertaken with the additional purpose of pointing out ways in which, if changes were needed,

improvements might best be effected. For this reason, also, it was important to choose standards of judgment that would show how good or poor the instruction now is, and at the same time suggest directions that improvement might take.

RELATION OF STANDARDS TO AIMS OF INSTRUCTION

What standards, then, should be set up? The customary examinations do, at least, give one suggestion. Knowledge has often been used as the standard of value in instruction simply because it is one of the purposes of instruction, although not the most prominent. This suggests that purposes, in any field of activity, should be the standards of value in that field; this, in general, seems to us a sound principle, and it has been prominent in guiding this investigation.

Let us assume, then, that the leading purposes of instruction must form the basis for judging its quality; that instruction which accomplishes its aims fairly well is of a high order; and that instruction which does not accomplish its aims at all, or but poorly, is of a low order.

WHERE THE AIMS OF INSTRUCTION MUST BE FOUND

It is not easy to state the main objects of teaching. But since they are commonly supposed to include such a control of themselves and of the world's resources by pupils as will make them high-minded, appreciative, thoughtful, and generally efficient participators in the world's affairs, the more immediate purpose of instruction must be to impart the knowledge and power, and form the habits that determine a well-ordered daily life. That is, we must look directly to the life about us to find what subject-matter the school should offer, and how this should be treated. The curriculum will be good to the degree in which it contains problems — mental, moral, esthetic, and economic — that are socially

vital and yet within the appreciation of the pupils; and its method of presenting that curriculum will be good to the degree in which it exemplifies the methods of solving problems found most effective by the world's most intelligent workers.

This proposition is, possibly, the most debatable one that we have to offer on the question of standards. For many schools that *seem* to accept character as their final aim, tend strongly to eschew any close relation between instruction and daily living.

We are convinced, however, that much of the present dissatisfaction with the schools, particularly with their waste, is due to neglect of this relationship. We are also convinced that this position with reference to the elementary school is in harmony with the best modern educational thought.

CHAPTER II

STANDARDS USED IN THIS INVESTIGATION

ANY list of the main elements in daily living that might be taken as standards in judging instruction would vary according to the one who made it. Yet such lists would to a great extent duplicate each other, because there are certain essentials that are common to every person's welfare. The following four factors, because of their universality, are particularly worthy of acceptance as aims of school instruction; and, though others could easily be added, they are sufficient to test the general effectiveness of teaching.

FACTOR I. MOTIVE ON THE PART OF THE PUPILS

One of these factors is *motive*. One of the great differences between efficient and inefficient men is found in the purposes that move them. The quality of a man's aims chiefly determines the quality of his character; their variety determines his breadth; and their intensity his energy of thought (including imagination), feeling, and action. Purposes bear the same relation to efficiency among young people as among men. One of the primary responsibilities of instruction, therefore, should be to inculcate objects in life, or purpose, on pupils.

This is necessary, first of all, for present conduct. If children behave badly in the street, or if they are lazy, the school is questioned. The public holds the school responsible for developing character *now*, while the pupil is still young. But it is necessary also for the future. When the time comes for the pupil to choose his vocation, he

will make his selection blindly if he has no plans and no ardent desires. On the other hand, if his ambitions have increased and improved along with his knowledge, a way has been prepared to meet this crisis, and his choice is far more likely to be intelligent and confident.

Instruction cannot, therefore, rest satisfied with cold facts alone. Its quality is to be measured partly by its provision for growth in motive. One object of teaching a pupil how to keep the skin healthy should be to arouse in him a desire to obey the laws of health. One object of teaching him to play games should be to make him want to learn more games, even throughout life. One object of teaching the Crusades in history might well be, by showing how superficial were the causes and how fearful the cost, to influence the youth's attitude toward arbitration. One object of teaching about John Hampden is to lead pupils to determine to imitate him. One object of teaching the geography of Germany is, by showing how closely she is shut in by neighbors, to make pupils watchful for magazine and newspaper articles touching the German attitude toward war and her preparation for it.

Such an outcome of instruction cannot be left to chance. It must be secured by careful planning. First, a curriculum must be selected that is near enough to the child's interests to nourish ambitions. Not every large topic can be of this nature, but every study may contain many large topics that have the power of arousing specific hopes for the future.

After such a curriculum has been secured, much depends upon the method of its presentation. An instructor in literature in a certain seventh grade, after bringing her class to a fair understanding of Browning's short poem, "The Patriot," raised the question, "Are we now through with this selection?" The pupils looked somewhat surprised, having supposed that their full duty was performed. But, seeing that more was expected, they replied, after some hesitation, "We might read it again." Also, "We

might memorize it." They were endeavoring to satisfy the teacher rather than to express any plan that had appealed to them.

Yet the poem might, without difficulty, have been so presented that the children would have replied with some enthusiasm: "I want to come back to this, particularly to enjoy the first two stanzas in contrast with the fourth and fifth. I wonder whether such a quick change of fortune often happens in real life. Does the fault, in such cases, lie with the man himself or with the people?" The teacher possessed the skill necessary to secure such responses, but there was little evidence that she had planned for them. But definite planning and some skill, both in the making of the curriculum and in its presentation, are required, in order properly to inculcate motive, or to meet this first test of the quality of instruction.

FACTOR 2. CONSIDERATION OF VALUES BY PUPILS

A second extremely important factor in daily living is the weighing of values. The worth of a thing is one of the most common and necessary considerations in adult life. Any business man will illustrate this fact in five minutes of conversation. In any field of experience there are usually facts, ideas, and projects of varying value, and skill in distinguishing their relative merits is a kind of excellence that every one requires; it implies a study of causes or reasons and is synonymous with good sense, or wisdom. It is important to keep in mind that good judgment mainly signifies proper appreciation of relative values.

Considerations of worth are approximately as common and necessary among children as among adults. They judge the merits of teachers and the justice of treatment from both teachers and parents quite freely, whether we like it or not. They must often judge when it is safe to cross a street, what wrap they shall wear, what games it is best to play, what treatment they shall accept from their mates,

and what kinds of reading matter they shall select. In all such cases they can blunder by overestimating minor matters, or they can show wisdom. Preparation for both their present and their future lives requires, therefore, that they be constant students of the worth of things.

This makes a study of value a prominent element in school instruction. All school branches contain facts of varying degrees of importance. Many names in history, many dates, many places in geography, many words that one might learn to spell, are insignificant and need not be emphasized. Other names, dates, places, etc., are vital and should receive emphasis. Since it is one of the main needs of children to distinguish between these two classes of facts, one of the main duties of teachers is to help them do this. If such distinctions are neglected, there are sure to be much waste of time and much misunderstanding of subjects; and by making such distinction, a close relation is established between instruction and growth in good judgment.

Provision for this selective habit in study again concerns both curriculum and method. Just as new truths can be understood only through related truths already known, so new values can be appreciated only on the basis of old values properly related. Therefore the topics in the curriculum must be near enough to things that are of vital interest to the pupil for him to feel their worth. If a seventh-grade class in history were asked to point to the most important paragraph in a chapter on the United States Bank, they would have to choose at random, for the topic is too foreign to them to awaken feelings of appreciation. Or, if they were frank, and were asked to state what they most valued in that chapter, they might reply, "Nothing at all." That answer would express their attitude toward many other topics often included in school curricula. In many such cases all that can be done by them is to try to understand whatever is stated, and memorize it passively, with no thought of its value.

But after only suitable subject-matter has been selected, much still depends upon method. Good method will ever keep pupils alert to values. For example, as some parts of a story are more important than others, and as some errors made by children are more necessary to correct than others, pupils even in the lower grades, with much emphasis on reasons, should be led to consider which are the more significant. Most pupils will distribute their time somewhat equally over a given list of words for spelling, unless they are taught to pick out the few that they do not know how to spell and to concentrate upon them. They will do the same in learning the multiplication tables and in solving problems in arithmetic, unless taught to select in accordance with their individual needs. There are few recitations in history, geography, literature, or any other subject in which the varying values of facts and tasks may not be distinguished.

FACTOR 3. ATTENTION TO ORGANIZATION BY PUPILS

A third factor of special importance in daily life is organization of ideas, or system. How essential this is to success in adult undertakings of all sorts every one knows. No subject is mastered until the relation of its parts to one another is determined, until the facts bearing on each phase are separately grouped, and until enough such facts are collected to give fair support to each leading idea. Good organization of ideas means just this; it signifies such order and completeness as will assure thoroughness or fulness of comprehension and consequent force in presentation.

The need of organization of facts and ideas by children for the accomplishment of their purposes has received little attention, although we know that scattered thinking is a common enough cause of failure among them. But the importance of orderliness of thought in later life is so generally recognized that few people hesitate to place upon

the school, from the kindergarten on, the responsibility for careful training of children in this respect.

The school curriculum meets this responsibility to some extent by making the organization of ideas a prominent part of the study called composition; sequence — causal or otherwise — and grouping are there emphasized. But to depend upon that subject alone for securing systematic thinking would be much like depending upon grammar alone to secure correct English. The organization of the subject-matter in *each* study must be scrutinized, particularly the extent to which each topic is a well-rounded whole, having a central idea that is strongly supported by subordinate facts brought into close sequence. Many curricula give the impression of being composed largely of detached facts.

The teacher's method of presenting facts and the kind of response that she accepts from pupils also have great influence on habits of organizing ideas. In a certain geography class a teacher, by actual count, put 18 questions in two minutes, a rate which seemed to be habitual with her. That meant approximately 360 questions in a period of 40 minutes. Of course, in such a case as that, each question can scarcely call for more than a single fact, and each reply must be very brief, usually only a fragment of a sentence. In a subject like geography in particular such teaching indicates utter neglect of causal sequence. Yet that kind of recitation is not uncommon, and its influence is directly destructive of orderly, systematic thinking.

The scope of a teacher's questions, therefore, and the fulness of the pupil's answers, should receive close attention in judging the quality of her work. Broad questions indicate a grouping of the facts in the teacher's mind, and if well worded they signify much care in that respect. But even where such questions are put there is a tendency, both in school and college, to accept any lame answer that is correct, without reference to the arrangement of ideas or to their forceful, logical presentation. Here is a test

of good teaching. Correctness of statement alone is far from sufficient. The answer should be as broad as the question; and it should be quite common, rather than unusual, for a pupil to talk one, two, or three minutes in order to make an effective reply.

FACTOR 4. INITIATIVE BY PUPILS

A fourth factor in daily life that ranks with those already named is initiative. In the world at large possibly the most highly valued quality of character is self-reliance, i. e., the ability to act as a leader whether in one's own affairs or in the affairs of others. Every intelligent parent desires to see the right kind of independence developed in his child.

The relation of this power to school instruction is not difficult to discern. Children can be furnished with desirable aims by the teacher; they can also, under the teacher's direct stimulus, pass judgments about values and organize their facts. Or they can do these things and many others in school largely under their own direction. Since they *must* finally do all of these alone, and since they are *supposed*, even as young children, to do many of them alone when they study, it follows that the school in particular is the institution that should cultivate in them the power of self-direction.

This quality, like some of the others already mentioned, requires a curriculum intimately related to the child's experiences; for the self-confidence and energy necessary for its exercise can never be evoked when the subject is beyond the comprehension of the child or is foreign to his interests.

Good teaching is always related to initiative. In all instruction some one must determine the work to be undertaken, must ask questions, and must accept or modify answers. The teacher can assume full leadership, making all the plans and deciding when each has been executed; or she can accustom pupils from the kindergarten on to share

this responsibility, until in the higher grades they can bear a good portion of it. Almost every recitation will reveal her attitude in this matter, and the procedure that she adopts with regard to it will be one of the best single tests of the worth of her instruction.

CHAPTER III

VALUE OF THESE STANDARDS

I. AS TESTS OF HABITS FORMED

THE relation of these four standards to habit is one proof of their significance as tests of teaching. Conduct is often defined as a bundle of habits; and since good conduct and purposeful activity are the aim of the school, it is not surprising that the superintendent of schools has in recent years laid so great emphasis on habit formation. The value of school government is largely measured by the extent to which it influences such habits as punctuality, regularity, and neatness.

It is the duty of instructors to supplement good school government by inculcating other habits more intimately connected with the acquisition and use of ideas. Instruction is always exerting a strong influence in this direction whether the teacher is conscious of it or not; it is always inculcating either good or bad ways of using the mind. It may easily accustom young people to working in a listless way, without reference to the comparative values of ideas, without organizing scattered facts into significant relations, and in helpless dependence on the teacher; or it may habituate them to better ways of working. As it does the one or the other, it allows waste without limit, resulting in general inefficiency, or leads to great economy and consequent efficiency. A test, therefore, of the principal habits inculcated by the instruction is one of the most effective means of determining the quality of that instruction.

In this respect the standards presented above possess peculiar merit. They center attention directly on the lead-

ing habits of thinking that pupils are forming, particularly the habits touching motive, value, system, and independence. And although there are valuable habits not here included, these standards, by measuring what the children themselves are accomplishing toward the formation of certain very important habits, help to estimate the influence of instruction on habit formation in general.

2. AS TESTS OF THOROUGHNESS OF KNOWLEDGE

In any attempt to organize ideas one is primarily concerned with the relations that those ideas bear to one another. They must be grouped and arranged in sequence in accordance with their inner connections; and the excellence of the organization is directly proportionate to the fulness of insight into these relations. Careful attention to organization is, therefore, one important means by which fulness of insight, or thoroughness of comprehension — in the scholar's sense — is attained.

Attempts to distinguish the varying values of facts show a desire to go beyond the mere connections that they have with one another and to consider their bearings on human affairs. The insignificance of some things is due to the fact that they have little to do with our interests; and the significance of others is that they are vital to us. Careful attention to relative values, therefore, gives assurance of an additional kind of insight or degree of thoroughness; not the kind that the scholar, as such, requires, but the kind that any one needs who expects finally to make use of his knowledge.

The requirement that instruction should exert an influence on hopes and purposes carries this latter insight a step further by individualizing it. It is the particular pupil, each time, whose hopes and ambitions are to be affected, and if that is to be accomplished he must see the peculiar bearings of the instruction — whether theoretical or practical — upon his own career. In this case the insight must

be so thorough as to lead to some degree of feeling and volition.

Finally, the demand that instruction assume responsibility for the exercise of the pupil's initiative aims at an insight that will allow one to go still further and to *use* knowledge. Up to this point knowledge is only comparatively thorough, because it is theoretical. But the exercise of initiative involves to a considerable degree the independent use of knowledge, and therefore control over it; and thus it greatly increases the degree of thoroughness.

Every one knows that the word "knowledge" is used in many senses, signifying different degrees of thoroughness. The four standards that have been proposed test four of these degrees, beginning with the thoroughness of the scholar, which really insures only information, and ending with the *use* of knowledge, which insures *control* of information—a far higher degree of thoroughness.

3. AS TESTS OF INSTRUCTION IN THE THREE R'S

It may be admitted that, when thinking constitutes the bulk of the work, as in studies in which the results are not largely dependent upon repetition or drill, these standards may prove admirable tests of thoroughness of understanding. But what is their value as tests of such subjects as spelling and the three R's?

In finding an answer it is necessary to recall the fact that these are often called the *formal* subjects, because they deal so extensively with forms or symbols. The great danger is not that these subjects will fail to receive a fair amount of attention, but rather that they will be taught *formally*, or too mechanically. That is, the children are in danger of learning to read without expression; of spelling words wrongly in writing letters to friends which they spelled correctly in lists; of adopting a stilted style in composition because, having really nothing that they want to say, they are thinking mainly about words; of failing

to solve simple real problems even though they have learned to solve book problems that are more difficult. In other words, there is even more danger here than in other subjects that the work will be superficial, taxing the memory mainly. In that case, interest is wanting, attention is divided, and little is finally learned.

The crucial question, then, in these subjects is: Do the words stand for real thoughts? or, How live-minded are the pupils? That is just the question that the proposed standards help to answer. Inasmuch as they direct attention to provision for motive, for exercise of initiative, for selection according to values, and for grouping according to relationship, they gage the thoughtfulness of both teachers and pupils in these branches. For example, they note whether or not a teacher is making selections in beginning reading that are interesting; whether she is directing the pupils at every step, or is leading them largely to direct themselves; whether she is causing special emphasis to be placed upon a word or a sentence or a paragraph that is especially important, or is treating all such things as of equal value; and whether she is having a story read by its natural parts, or is making the individual word or some other small part the conspicuous unit of advance. Thus the life-giving qualities in these formal subjects are tested by these standards.

But, granting so much, the question may still be asked, "Do these standards test the knowledge of words as required in reading and spelling, and of the fundamental operations in arithmetic?"

We admit that there is more doubt here. Some teachers assert that live thinking in these subjects is the best possible guarantee of mastery of the mechanical facts in them, far better than frequent drills. Others assert that frequent drills are the only guarantee.

On account of this doubt we have deemed it wise to fortify our investigation at this important point by supplementing the proposed standards with some actual ex-

aminations in formal facts. The Courtis tests have been used for this purpose. These are discussed, along with the conclusions reached, in another book of this series by Mr. S. A. Courtis.

4. AS SOURCES OF SUGGESTION FOR IMPROVEMENT

It was deemed important that the standards chosen for judging the quality of instruction do more than show merely whether it was good or bad. Very often after an examination has proved that teaching in the three R's has been poor, a cry is raised for more drill as the remedy. But that suggestion is a mere guess. In fact, "being poor" in reading has usually been found to mean that it was too mechanical; and more drill would only make it still more mechanical, and therefore worse. Whatever be the quality of instruction, then, standards for judging it should be chosen that suggest desirable ways of improving it.

Here, we think, is revealed one of the merits of the standards proposed. While not testing primarily what children know — although, as explained, they include that — they do two things: they fix attention (a) on what *the children are doing*, and (b) on the value of it as judged by *its relation to the purposes of instruction*.

Suppose, now, that a teacher is found asking a great number of questions in geography, which the pupils are answering as best they can. They may or may not show much knowledge. But since self-leadership is one of the purposes of instruction, the pupils should at least participate in proposing the questions. And since organization of ideas is another prominent object, the many detailed questions should be reduced to a smaller number by a more careful grouping of details. Thus such instruction would be shown to be weak, probably, in two respects; and improvement would consist both in throwing more responsibility upon the pupils, and in studying the organization of the facts presented.

These standards, therefore, by fixing attention on the chief things to be accomplished in teaching, directly suggest ways in which improvement might be effected when that teaching is poor.

5. AS TESTS OF THE CURRICULUM

Not seldom is the teacher's method of presenting subject-matter the sole question considered when the quality of class-room instruction is under investigation. But the subject-matter itself may have been selected without reference to the aims of the school. That is far from uncommon. Then, no matter how skilful the method of presentation, facts are acquired that have no purpose. That means waste. Or, while the facts are of general value, they may lack adaptation to the age or particular experiences of particular children. Then again even a skilful teacher must fail to secure assimilation of the facts. There is waste again. The curriculum, therefore, as well as the method of its presentation, is necessarily a very prominent subject of investigation when the quality of instruction is being considered. Both of these are continually in evidence in any recitation, and they together determine its quality. Any standards adopted must then be clearly applicable to each. In this way the work of the higher officials — the principals and superintendents — who make the curriculum, as well as that of the class-room teacher, receives a direct evaluation. It is partly because the standards above presented are so clearly related to the curriculum that we are convinced of their merit as a basis for testing the quality of teaching. (Their relation to the curriculum is more fully discussed later on.)

CHAPTER IV

METHOD OF APPLYING THESE STANDARDS

TWO PLANES OF INSTRUCTION

1. *Instruction on the Higher Plane*

IN instruction on the higher plane facts are comprehended and remembered; they cannot be neglected because they are the raw material with which instruction deals. But they are mainly the means, not the end in themselves. Efficiency on the part of the pupils is the goal; and facts are selected and presented with the object of making the pupils energetic and high-minded, judicious, forceful, and self-reliant. Review must always play a prominent part in good instruction; but review by thoughtless repetition, or *drill*, is not prominent here because it is not necessary. Most of the facts are overhauled and associated in so many thoughtful ways that they are understood and remembered without the help of mechanical repetition. But the striking fact here is the evident relation between the instruction and the principal aims of the school. No doubt some recitations do not indicate this connection; but a majority of them are so conducted that a striving for the higher objects, and a partial attainment of them, are plainly observable.

2. *Instruction on the Lower Plane*

In instruction on the lower plane the comprehension and retention of facts and mechanical skill, rather than certain effects upon the more important habits of pupils, are the acknowledged goal. The subject-matter of the curriculum

is here more carelessly selected because the need of very careful selection is not felt. Also mechanical repetition is far more frequent because lack of motive, of abundant association, etc., makes it compulsory. Some of the recitations give glimpses of a relation of the facts studied to the higher aims; but the great majority show that neither teachers nor supervisors are looking beyond the storage of knowledge and acquisition of mechanical skill.

JUDGING INSTRUCTION BY THESE PLANES

The general healthfulness and efficiency of the instruction depend upon these two planes. Not all of it can be on the higher plane; nor should most of it be on the lower. That instruction is good in which occasional recitations are clearly on the higher plane and in which most of them show intelligent attempts to place it there. That instruction is poor in which the great majority of recitations reveal not even a striving toward the higher plane.

Here, then, is the dividing line between good and poor teaching; and in this report we have endeavored to find out to which of these two types the teaching in the New York City kindergartens and elementary schools mainly belongs.

In following this plan many details have been neglected. But it is partly because they are not of primary interest at this point. The general efficiency of the schools — the quality of the results that they are securing — has been the question under investigation; and an answer to that question required that they be judged with reference to the objects that they were expected to accomplish.

To enumerate all of these objects was obviously impossible, nor was it necessary. Only a few were selected, but those comprehensive enough in character to reveal the prevailing tendencies. Many of the details that influence the quality of teaching are considered at length in later chapters. But here our purpose has been to determine, in a

broad way, whether the instruction is clearly so related to leading phases of active life as to be wholesome, reasonably effective, and promising for the future; or whether it lacks this relation, and is in need of radical improvement.

JUDGING INSTRUCTION BY THE ACTIVITY OF THE PUPILS

In applying these standards it is necessary to emphasize a distinction to which reference has already been made. One may observe the teacher, primarily, and judge the quality of her instruction mainly in terms of her own activity. In that case we consider her provision for motive, the pointedness and force of her presentation, her attention to relative values, and her exercise of independence. Standards that have been proposed for judging the work of teachers, as a rule, presuppose this point of view.

But one may also judge the quality of instruction chiefly in terms of the activities of the pupils. In that case we ask: What are the children doing? Are they setting up objects of their own? Are they pointed and forceful in their responses? Are they selecting facts according to values? Are they exercising initiative in their study?

While these two points of view are intimately related, since the teacher's activity must greatly influence that of the pupil, they are far from identical. Proof of this statement is found in the fact that experienced teachers will *readily* describe their own procedure in presenting a given topic to pupils, while they will usually hesitate and show embarrassment when asked to describe the procedure to be expected from pupils in studying the same topic. That signifies a consciousness on their part that pupils should do something quite different from what they themselves do, as well as an ignorance of what it should be. The explanation is that teachers, supervisors of teachers, and authors of books on teaching have been so intently observant of the procedure of the teacher that they have overlooked that of the pupils. Yet the center of gravity of

the school lies in the pupil; and what he himself finally does determines the value of all the teacher's efforts. He, therefore, should be the primary object of consideration, rather than the teacher, and the quality of the instruction should be judged mainly in terms of his activity.

CHAPTER V

APPLICATION OF THESE STANDARDS TO PARTICULAR RECITATIONS

THESE standards have been used, first, as tests of particular recitations, with the object, chiefly, of showing how applicable they are to the details of instruction. Then they have been applied to the mass of recitations observed by the various members of the staff of specialists in all the five boroughs of Greater New York. The following are examples of teaching judged in accordance with the standards described:

NEWSPAPER RECITATION IN GRADE 6

In a certain sixth-grade reading class copies of a four-page school newspaper, called *Current Topics* and dated September 15, 1911, were distributed; the period was then devoted to the reading and discussion of its articles.

Probably one-third of the children present were reading newspapers occasionally; most of them would soon be reading them regularly. It would have been fitting, therefore, for the teacher to remind them that newspaper reading was a task awaiting them all, and that many persons did it in a very poor way. Thus the reading of papers in the right way might have become somewhat firmly fixed among their purposes.

Following this they might have considered what parts were most worthy of attention. On the four pages were fifty-three separate articles, aside from a few advertisements; and of course not all were equally valuable. Among

the most important was one occupying the entire third column of the first page, telling about President Taft's prospective trip that was to consume forty-six days and cover 13,000 miles. A second one of special interest on the front page was a short paragraph on the "Danger in Ice Cream." On the third page was a valuable column about the new "Canadian Railway from Hudson Bay to the West," and, on the fourth, one about "Maine and Prohibition." Only three or four others ranked with these few in worth, and one of the most important factors in the proper reading consisted in the selection of these portions.

No doubt most of the children were inclined to read the whole of an article in order to determine its value; and that fact would have necessitated a consideration of the relation of the headings to what followed under them. This would have introduced the question of organization. If the substance of an article were correctly indicated in its title, further reading would often have been unnecessary. But the children would have had to judge whether or not the titles could be relied upon in this way. In thus considering the central thought their attention would have been directed to the very essence of organization. Organization would have had to receive further attention, too, owing to the fact that there were a full dozen of the fifty-three articles that contained only five lines or less. Not enough details can usually be brought together within five lines to secure force, which is one of the principal elements in good organization. For instance, under the heading, "The Turbulent Lake," was the sole statement, "Lake Michigan has just had its greatest storm in many years." Such isolated fragments are comparatively worthless. The paragraph on "Danger in Ice Cream" contained only eight lines, and while it stated that much of the ice cream sold is made of impure materials, containing filth and disease germs, there was such striking lack of detail in the way of proof that the desirable force was plainly wanting.

Finally, the teacher might have influenced the pupils

themselves to take much of initiative. For example, immediately after the determination of the task before them she might have said: "You may begin the reading at any point that you think is the best. If the others, or if I, disagree with you, we shall interrupt." Then, if any one had shown a tendency to be non-selective, or inattentive to organization, both questions and answers might have followed from pupils, directed to one another; and the instructor would have needed only to supplement their efforts when their own power was insufficient.

The plan actually followed, however, was very different from all this. After the papers had been distributed, the teacher said, "John, begin with the left-hand column on the front page," and the first seven articles, occupying two columns, were read in order, with occasional comments and questions on the facts by the teacher. Then, seeing by the clock that a considerable part of the hour was past, and apparently observing that the article on President Taft, occupying a whole column, was too long, she directed the class to omit that and proceed with the next section, on "The Swimming of the English Channel."

Thus this teacher was the leader throughout the period, determining the order of procedure from the start, putting practically all of the questions, and determining the correctness of all the answers. There was not only no exercise of initiative on the part of the class, but there was no selecting according to value by any one; no attention to organization by any one; and no apparent consciousness on the part of any one of any purpose beyond learning the news of the day. In brief, the recitation showed not even a striving toward the higher plane of instruction, and resulted in only scrappy information.

LITERATURE RECITATION IN GRADE 5

In a certain fifth grade in literature the class were directed to turn to the five-page fairy tale, "The Blue Light,"

and to begin on the third page, since the previous pages had already been read. The boy called upon to begin arose and said: "There are three words in the first sentence [of two lines] that might cause me trouble; namely, *sudden*, *dwarf*, and *midst*." Then he read the two lines aloud and sat down. The next pupil called attention to the word *soldier* in the next sentence, of less than one line, and read that sentence only. After him each child called upon pronounced the difficult words in his sentence and then read the sentence. In all, perhaps twenty words were thus named in advance, and the entire paragraph of eighteen lines was read, and then read a second time, in a period lasting from fifteen to twenty minutes. This method of reading is not uncommon in certain parts of the city.

Throughout the period the attention of all concerned seemed to be mainly directed to the proper pronunciation and enunciation of individual words. To this end the smallest possible unit of advance was adopted, i. e., the single sentence, and discussion was confined to remarks about single words and phrases. Organization could scarcely have been more neglected.

If the children had been expected to read this story in school approximately as they ought to read such stories outside, which is practically the standard that we have urged, they would, first of all, have adopted a much larger unit of progress for each person — a whole paragraph, for instance, or a good part of one, if these were long. Then each pupil would have had a much better opportunity to enter into the spirit of what he read, and far more ground would have been covered.

The only suggestion of any attention to organization came in one request of the teacher, at the close of the period, for a boy to give "the idea of the paragraph." But her wording was accidental, for she accepted a detailed reproduction of the entire section without comment.

Need was not lacking, even in this small portion, of

dwelling on the more important facts. For in dialogue form it showed how the manner of the soldier changed from utter discouragement and incredulity to surprise, hope, and joy. Attempts to express these different feelings were necessary both to appreciation of the story and to its proper oral rendering. But no such tendency toward selection was shown.

Finally, conversation about the leading features of so interesting a story might have been introduced, the class thereby learning to fill in between the lines by the use of their imaginations, and to express judgments on their own initiative. In this way there might have been developed not only a good degree of independence in connection with their study of literature, but also a stronger desire for more reading. But there was no suggestion of any such work. Knowledge alone, and knowledge only of minute detail, seemed to be the purpose; and the recitation was on the same plane as that on the newspaper held in a different school.

A FIRST-GRADE RECITATION IN READING

A first-grade recitation in reading was of a very different kind. The teacher had several times sung before her class the Mother Goose rhyme,

Diddle, diddle, dumpling, my son John
Went to bed with his stockings on;
One shoe off, the other shoe on,
Diddle, diddle, dumpling, my son John.

Some of the children sang this with the teacher; then, having memorized the tune and the words, they sang it without her help.

At this point she hung a large card before them with the rhyme printed upon it. Remarking that here were the words of the song, she asked for a volunteer to point out the first words, "Diddle, diddle, dumpling, my son

John." Some one else volunteered to read the second line; another the third line; and another still the fourth. After whole lines were thus read several times by the children, or were pointed to by them while some one else read them, attention was called in a similar way to certain phrases, such as "my son John," "one shoe off," "went to bed," etc. Finally, single words were located as they were called, or were recognized as they were located.

At the end of twenty-five or thirty minutes a large majority of the class seemed to know most of the words — a remarkable fact, since there were more than fifty children present and this was only the second week of school.

One striking feature of the lesson was the fact that the children were learning to read something that was of interest to them, so that the words were more than mere empty forms. This plan tended plainly to establish a liking for reading, and therefore for the school. Thus motive was skilfully provided for.

The selection required no consideration of relative values, and the teacher made no reference to that point. But attention was plainly directed to organization. The class read the whole piece; then whole lines; then groups of words, or phrases; and only toward the end were the words dealt with individually. The method, up to this last step, was influencing the children to group words according to their relations to one another, so as to read with expression rather than to pronounce words singly. But in this last part one line after another was read somewhat slowly, with the pointer resting upon each word, so that there was a tendency only to pronounce the words. This procedure seemed so dangerous to proper grouping of words in phrases that the teacher was later asked by the visitor how she made sure of good expression. She replied that she had been securing it partly by having the children *chant* these rhymes in their music period. Evidently she recognized the full bearing of organization upon the subject of beginning reading.

Nor was provision for self-help lacking. Having memorized the rhyme the class were in position to read each line in order without help, then to recognize the main parts of which it was composed, and finally the single words. And if they failed to call a certain phrase or word, they could recall the whole line, or if necessary go back to the beginning and trace down the part. In this way they were learning to recognize a form by the aid of the context, which is the least mechanical and most independent approach to new words — either form or meaning — that there is. This plan, together with the fact that the children were already sharing with the teacher the responsibility of deciding the correctness of answers, gave promise of rapid development of self-reliance in the class.

This recitation belonged beyond a doubt to the higher type of instruction.

CONSTRUCTION IN A KINDERGARTEN

Age of children, 5-6 years.

Materials used, a 3-inch cube, composed of cubes partly subdivided into halves and quarters, etc. (Fifth gift.)

Two children distributed the boxes deftly, and when all were ready the teacher remarked that, as they had not quite finished the large chair they were making last time, they would make it again.

Boxes were opened and directions were given for lifting the top layer of blocks, so that eighteen whole cubes were left in a solid form measuring 3 x 3 x 2 inches. The teacher then asked if any one knew how to begin, and several children recalled that three cubes lying at the front should be placed in such a way as to form the back of the chair. From this point each worked independently; that is, they did not wait for each other or for directions, and it was quite evident that most of them held some former construction more or less clearly in mind.

Any deviation from the original form was checked by the

teacher's saying, "That is not right." "Don't you remember where we placed that block?" "The chair back was not so high," etc. There was no point at which it was apparent that new or uncompleted parts were being thought out. It was a type of lesson which in the elementary school would be called a review or a test lesson. Its purpose seemed to be to test ability to recall and reconstruct. Accuracy and conformity seemed the chief considerations.

After all had completed the large chair according to pattern, the teacher said: "Now you may make some small chairs. Try to make three out of the large one without tearing it down — good workmen always do that way." This part of the lesson was somewhat freer than the first part, and some variations in form resulted. However, since more stress was laid on the particular mode of securing these small chairs from the large one than upon getting well-proportioned, pleasing chairs, the forms on the whole were not good and the children displayed little satisfaction in them.

The following judgments of the lesson seem warranted:

The children were not discovering a way of making chairs that might prove valuable to them later in their play. Nor were they making these chairs in order to put them into their doll houses, or to play with them otherwise. At least during the period there was no reference to one of these purposes, or to any other. The conclusion is drawn, therefore, that the subject-matter of the recitation bore no relation to their own particular desires and plans. In doing as they did they were simply trying to satisfy the teacher.

Organization of subject-matter was emphasized. But it was an organization concerned with sequence alone, the particular order of moves agreed upon by adults in securing all possible manipulation of such blocks. Indeed, it was this particular sequence of moves that made up the subject-matter of the recitation. This is clearly seen when one recalls that the product wanted, i. e., the chair, might have been arrived at just as truly in much briefer time had the

children been allowed to take the blocks out of the box in any orderly manner and set them up in their own way.

Now, while care as to sequence may be a good thing, it was in this case the teacher, rather than the situation itself, that made it necessary; i. e., it was an artificial sequence. And it was so excessively refined that if a child were to follow it closely at home in playing with his blocks, he would be giving signs that he was not well. In general, the standard for values in school is found in their values outside.

The absence of any real purpose of the recitation, from the children's point of view, allowed them no basis for their judging of relative values. The teacher, also, in her devotion to artificial technique, had entirely lost her bearings in regard to relative values. That accounts for all neglect of proportion of parts in the chairs that were made.

Finally, the suggestion as to what should be done and the sequence of steps or moves came from the teacher. Even in the second and freer part the pupils were directed to "make *three chairs* out of the larger one," and do this "without tearing it down." While there was some freedom as to rate or speed, the recitation may be described as a dictation exercise, or a review of one, with freedom allowed in a few minor respects.

On the whole, the recitation, lacking purpose and content, was a good illustration of the extremely formal work often seen in kindergarten and primary schools.

Its sole excuse is a profound belief in its disciplinary effects; but the doctrine of formal mental discipline has been so nearly disproved by modern psychology that little worth is left to such instruction beyond its keeping children out of mischief; which, as a principal claim, converts the teacher into a mere caretaker.

CONSTRUCTION IN ANOTHER KINDERGARTEN

Children 5 years of age. Arranging and pasting of pictures of a blacksmith at work.

The teacher recalled a visit made by the class to a blacksmith shop, and asked them if they would not like to make a picture of the blacksmith.

"What ought the picture to show?" she said. Different things were mentioned and some of the movements of the smith at work were illustrated by the children. Then the teacher told them they could plan a picture showing him bending over or upright, with hammer in hand at the anvil, or in front of the forge. Parts previously cut out by the teacher were adapted to different poses, and the children chose what they would represent. Then they arranged the parts according to their own ideas, teacher and children making occasional comments. Children asked questions and sought advice as to placing, and the replies sometimes came from the teacher and sometimes from other children. A good deal of recalling and of mental picturing was necessary.

The task of producing a picture of a smith at work, expressing an idea that is accurate and pleasing in both selection and arrangement, is worth doing. Its accomplishment requires observation, thinking; it develops taste of a sort often called for throughout life and intimately related to children's needs and desires. Motivation is, therefore, admirably provided for here. On the part of both teacher and children there had to be weighing of values, with reference to the idea to be expressed and to the method of expression. The teacher had to select the most prominent and characteristic things connected with the blacksmith in order to cut out the parts for the picture. The children, under her leadership, had to distinguish between essentials and nonessentials, in order finally to center upon some of the same things. In deciding upon desirable arrangement, distinction and selection were again necessary.

Further, the "composition" called for the putting of things together in right relation. The picture was not to show merely a list of objects that the blacksmith used, nor any other mere list. It had to have a central idea, if possible, with details so grouped about it as to form a unit.

Attention to organization was, therefore, necessary throughout the period.

Finally, although the teacher assumed much initiative in originally selecting and cutting out the parts, this only prepared her the better for leading the pupils to exercise their own power in that direction. And not only did they select and arrange, but in her presence they corrected, and made suggestions to, their mates. In her corrections she usually did not have to exercise authority by declaring, "That is not right," or "That piece does not belong there"; but she could ask, "Was it so in the shop?" or "Could the smith work in that way?" Thus, although limited by the facts, they were free to express their own individuality, as the great variety of pictures produced quite conclusively proved.

This recitation was almost ideal, and formed in every respect a striking contrast to the one preceding.

A LESSON IN SHOP WORK

Grade, 7B; 28 boys. Project, a book rack with a hidden mortise joint.

The boys at the benches stood at attention. Monitors distributed materials. They were vigorous and exact in their work.

Teacher: "What is the next thing to do on our book racks? Hands up."

John: "Cut down the end parts to put into the mortises we made last time."

Teacher: "What do we call these end parts?" A few hands.

Isaac: "Tenons."

Teacher: "A tenon. Now this is the way to begin." The teacher makes a quick sketch of the board used as the bottom of the rack. He talks as he sketches, asking the boys to name the various parts as he sketches — working edge, dimensions, etc. He tells about taking the try-square and

pencil, squaring the ends, taking the ruler and measuring one-half inch in from the end on the working edge, then down one inch from the working edge on the surfaced side of the board; then about applying the try-square, starting from the working edge and making the line that marks the inner edge of the tenon; then about setting the thumb gage at half inch, and marking the upper and lower edges of the tenon. As the teacher talks and refers to his sketch, the boys take the sheet of drawing paper already containing the previous portions of the instruction given and make a similar sketch and take down the chief items of the dictation.

When the problem is thus set forth through the sketch, the teacher takes his own book-rack materials (he makes a project, as a demonstration, step by step, before the class in each case) and, placing the board for the bottom on the bench, squares up the ends as he has instructed. Before taking each step he asks the boys to tell him what to do, requiring that they name each part technically in speaking of it, and each tool as it is taken up. If there is doubt or ambiguity in their statements, he asks them to come up to show him what they mean. Thus, talking and working, he does just what he expects them to do. On finishing this, which takes twelve minutes, he directs them to go to work. He now moves about among them, calling especial attention, where needed, to little points in handling tools or materials. One rather common defect was the failure to place boards properly in the vise. Another, common to most of the pupils, was the squaring. So he interrupted thus:

Teacher: "Everybody stop work. Where do we always begin in squaring?"

Boy: "On the working edge."

Teacher: "Of course. Now most of you are forgetting about that." He then takes the board of one boy and, applying the try-square, starts on the working edge, goes around the board, coming back to the working edge, telling of the order of steps as he goes, insisting that when he gets

around the board the lines must meet. The boys watch attentively. "Now does everybody understand? Then go to work." He continues among them, often telling what to do, frequently asking, "What did we say about that?" or, "What do your notes say about that?" and often taking the materials and tools and showing what to do. Reasons for doing things are scarcely at all considered.

A stop is called to show once more just how the gage is used in marking out the tenon. Work is resumed after two minutes of talk and demonstration.

A stop is also made when the parts removed to make the tenon are sawed out; and a demonstration is given, showing how to saw squarely across the board to make the edges of the tenon square when the chisel is applied to remove the part. Some boys are careless, sawing too fast. Teacher: "It never pays to be in too much of a hurry in sawing or doing anything else in wood work. Here is a boy who has been in so much of a hurry that he has sawed too far [showing board]. He will have to square up his piece, cut it off, and begin all over again. Don't forget, in sawing a board in two, to use the bench hook; in cutting out the tenon parts use the vise. Now go to work."

Boys frequently go to the teacher to ask a question. The question is usually *what* to do, or *how* to do some definite thing. The teacher often refers back to the demonstration, asking, "What did we say to do?" or, "How did we do it?" or, "Didn't you get that in your notes?" But he always tells or shows the boy if he cannot recall.

At the sound of the bell work stops where it is, to be resumed next time. Most boys have about finished the step assigned. Two have finished before the end of the period. These are put to work as helpers for the slower ones, telling them what to do, but not doing it for them.

The lesson can be considered as to motivation and initiative only in relationship to the making of the project as a whole, which probably occupied six or seven lessons. Except as the activity involved is in itself pleasurable to most

boys, and that the project *might* be used, there is no evidence whatever of motivation for the project. The following facts show how very little opportunity there is for either motivation or initiative:

- a. The book racks are *prescribed* for all by the teacher.
- b. They are all uniform in materials, design, and finish.
- c. There is no adaptation of the project in any particular to any *specific* place or purpose.
- d. The method of instruction is *dictation*. Questions of what to do, or how to do it, do not have to be thought of or asked. If the boys wait until the appropriate time, they are both *told* and *shown* every step.

The organization of the material in the lessons on the project is based purely upon the technical sequence of processes involved in construction. So far as observed, the pupil is not made conscious of this organization at all. Apparently the organization to the boy is simply this, "What do we do first in making this book rack?" This done, it is, "What do we do next?" repeated step by step, until the project is finished. The boys' notes were evidence of this. They added the new steps as given from day to day. They had not organized the problem as a whole and seen its main parts in their relationships. There were no summaries, and there was no grouping of facts into "points" in the lesson.

The values stressed in the class were:

- a. Accuracy in technical processes.
- b. Correctness in the use of tools.
- c. Excellence of finished products.
- d. Speed in securing results.

Attention to detail is the necessary factor in gaining these ends. These details all stand on about the same level. No broad principles are offered and no attention is called to certain most crucial parts of the undertakings; but there is simply a direct application of detailed instructions, making for immediate technical excellence. There is no atten-

tion whatever given to the body of thought included in the related fields of industry, geography, or civic and social life, which should give these projects their appropriate evaluation in the elementary school.

The recitation was distinctly on a low plane, inasmuch as it provided for motive in only the most general way; paid almost no attention to individuality and initiative; showed no tendency to bring the multitude of ideas into a few large groups, and ignored relative values, or values in general, entirely. Possibly it may seem good to some persons; but it was good only in the sense that it accomplished several of the minor purposes of instruction — while endangering those of higher value.

A LESSON IN DRAWING

Grade, 8A; 37 boys. Problem, working drawing for a piece of bent gas pipe.

Teacher: "Get out your drawing materials and mount a piece of drawing paper with thumb tacks. Today we shall make a working drawing for a piece of gas pipe bent like this" (draws the form on the blackboard). "Its total length is to be 8 inches and the two parts connected at the turn 2 inches apart. It is one-inch pipe. What will be the total width of the piece?" A boy answers, "Four inches."

Teacher: "Our scale is to be $\frac{1}{2}$. How long will the drawing be?" "Four inches." "How wide?" "Two inches."

Teacher: "Now, first, rule your margin lines. How far from the edge of your paper will these be?" "One-half inch." "Yes. Mark off the distance with your rulers; then be sure to use your T square and triangle to make the lines. Then make your 'thumb nail' sketch in the upper left-hand corner."

The boys proceed as directed, knowing what to do from previous experience. Meantime, the teacher makes

a diagram on the blackboard representing a sheet of paper with margin lines. She then goes about among the boys, insisting on the correct use of the T square and triangle. Her method is simply telling them what to do. The boys find the use of the triangle, for making vertical lines, rather difficult. When the margin lines are all made, and the thumb nail sketch is finished, the teacher then asks them what to do first.

Boy: "Make the construction lines." "Yes. How shall we make them?" "Very light." "Yes. Place the first horizontal line two inches from the top; where will the bottom line be?" Boy: "Four inches." "Is that right?" Another boy: "No. Two inches." "Why?" "The pipe is four inches and the scale $\frac{1}{2}$. That makes the drawing only 2 inches." Teacher: "Right. Now put in the bottom line." The teacher makes her own drawing on the blackboard as the instructions are agreed upon. She talks to the boys about the dimensions and the lines to be used, developing her sketch as she proceeds. Questions of *why* are given some consideration. Boys are asked to come to the board, at times, to show what they mean by the use of her drawing. When her own drawing is finished, she tells them to begin work on their own. She moves about among them, helping them to get dimensions right and to use properly the T square and triangle. In getting dimensions, she asks questions leading them to see answers themselves.

When the construction lines are all in, the teacher stops them all and has a boy come to the blackboard to put the sketch of the pipe within the lines. This is all quite simple and is easily finished. She stops him, when his first line is made no heavier than the construction line, to ask him, "What kind of a line should you use?" He replies at once, "A heavy line," and makes heavy lines. The boys are then told to put in their own sketches.

Another view of the pipe is then taken up. The teacher bends a piece of wire, which happens to be on the desk,

into the desired shape and holds it up with one end toward the boys. They are asked what they see with the pipe held so, and then how to represent it. Construction lines are made, using the original horizontal lines projected. The teacher makes the whole sketch on the board, and the boys then follow with theirs. Before all have quite finished the bell rings.

With this development of what to do, and how to do it, and with the copy on the board before them, it is almost impossible for the boys to make a mistake. The papers show good results.

The project is purely formal. There is no connection whatever made between the drawing and the execution of the problem in the shop.

Not a single healthy provision for motive can be found in this lesson. This is shown by the following facts:

- a. The teacher *announced* the subject of the drawing.
- b. The drawing was not to be used as a basis for construction.
- c. The particular subject had no direct relationship to anything that had gone before in the drawing or construction work.
- d. No connection was pointed out between this problem and the industrial activities which it illustrates. It was an isolated unit of drawing without purpose to these boys.

Likewise, there was no provision for the exercise of initiative:

- a. The problem as a whole was *prescribed*.
- b. The positions and dimensions were *prescribed*.
- c. The procedure was definitely *uniform*.
- d. The method was *dictation*.

In organization, the lesson represented a mere sequence of steps in the process of constructing the drawing. These included, roughly:

- a. Stating the aim or problem by the teacher.
- b. Ruling the drawing paper for the margin lines.
- c. Making the "thumb nail" sketch.
- d. Drawing construction lines.
- e. Drawing in the object in heavy lines.
- f. Indicating dimensions on the finished drawing.

This is typical of a plan which might apply as a sequence in procedure for any simple working drawing. As a means of getting an immediate drawing, well done technically under dictation, the results were excellent.

As to relative values, the features emphasized were:

- a. Accuracy in form and dimensions.
- b. Correctness in the use of drawing instruments.
- c. A knowledge of the meaning of the forms and dimensions used in the drawing.

Questions other than these did not arise. The relation of this problem to the industrial world, the values within the field of draftsmanship of the ends stressed, the making of blue prints as used by the industries, and all other questions not included in getting as much finished work as possible on the paper within the period were omitted entirely.

Again, so far as the lesson itself gives any evidence, it lacks the elements that place instruction on the higher plane.

If the teacher had aimed to introduce the pupils into the field of mechanical drawing in a way that would make them interested in it, and perhaps inclined both to study the excellence of such drawings, as seen in advertisements, and to produce others themselves in connection with their own needs, she would have selected some task likely to interest them in one of these ways. And she would have tried to find some plan that could be used later as a basis for actual construction.

If she had appreciated the worth of individuality and initiative, she might have allowed several different objects

to be drawn; or, if the class were not ready for that, she might have allowed one object to vary in minor details, according to the abilities and inclinations of different pupils. Also, she would have avoided dictation and uniformity of procedure, so that the pupils might feel and exercise their self-reliance.

If she had understood the value of organization, the task would have been plainly one of a group having a common purpose; and related knowledge acquired in previous periods, that would have proved helpful here, might have been recalled by the pupils, with their attention especially directed to its ordering and perspective. Also, the steps in the performance of the new task might have been separately named and described.

Finally, if the weighing of values had held high rank in her mind, though she need not have neglected accuracy and correctness, i. e., technique; yet she would frequently have directed their attention beyond such details, to the blue prints and later construction. In this way she would have kept the *need* of accuracy and correctness before them, while giving them also some standards for judging the relative values of all these items.

It is the entire absence of these broader ideas and of the spirit that goes with them, the absence of all tendency to connect knowledge and ability with the life that gives them worth, which places this recitation, like the former, on a low plane.

A rough parallel to this kind of instruction would be found in literature, if children were brought only to the point of pronouncing and defining each word correctly without reference to the broader ideas in the selections or to a taste for the field. Again, it would be paralleled in composition, if children learned to write each sentence correctly, without either acquiring a knowledge of the principles of composition, or reaching a point where they have any ideas to express, or feeling any interest in the method of presenting thoughts to other persons.

ARITHMETIC LESSON IN GRADE 1A

In a certain 1A grade the arithmetic lesson consisted of a drill on the addition table of 1's. The teacher gave the addends of the table in order, beginning with 1 and 1; after each combination she called upon some child to give the sum. She had not gone far before a pupil failed to give the proper answer. The teacher said, "No wonder! You can't think when you are not sitting up straight." The second failure brought forth the remark, "You can't think when you have your hand in your pocket."

There was no problem before the pupils that required solution. Even the motive that would have been present had the work presented any new difficulties was lacking. There was no recognition of values, because the instruction was unrelated to any specific things of value in their lives. There was organization, in the sense that the facts desired were grouped in tables, and the table of 1's was to be entirely or largely mastered before the table of 2's was undertaken. But that is the logical organization of the adult and just the kind that is repellent to children. No initiative was exercised by the children.

The entire period was characterized by a lack of interest that could have no other effect than to make the children dislike the subject.

In considering how our standards might be met in first-grade arithmetic, we see the need of abandoning such systematic instruction and of approaching number as it is actually used by children; for example, in connection with scoring in games, and with the weighing and measuring of actual objects, confining the combinations to small numbers. In that case, the table of 1's and 2's would be combined with some of the others, thereby securing some variety in the study and showing its naturalness. Motive would thus be provided for, and with it would come some attention to relative values and some possibility of initiative. Organization of these facts is least needed. Since they are

finally to be used entirely independently of one another anyway, there is no need whatever of grouping them into a table, except as that grouping may be a minor means of introducing variety. But drill upon such a table, over and over, is the extreme of abstractness. The recitation as held is a good illustration of the kind of instruction that stultifies children while giving them knowledge.

ARITHMETIC LESSON IN GRADE 8B

This was a class of forty girls.

The subject for the lesson was a review of bank discount. The class had studied bank discount in the 7A grade, and in the 8A grade they had had business forms, including promissory notes payable at banks, written and discounted.

The lesson began with the assignment of circles as the topic for the next day. It was required to find the diameter when the circumference was given; also, the circumference when the diameter was given, and the area. Then the class was asked, "What is a promissory note?" Several pupils replied by repeating a more or less formal definition of a note. Others were asked to repeat the form of interest-bearing and non-interest-bearing notes. Following this, there were brief references to certain terms employed. After that, they were supplied with books and told to work problems 9, 10, 11, and 12 on a given page. The problems were statements of dates and amounts, all involving the same principles.

The girls worked with earnestness, and throughout the lesson there was a healthy spirit of sympathy between teacher and class. They had been told to check up their results by the answers given in the back part of the book. Very soon there was a group of them, waiting their turn to receive assistance from the teacher. Some of those who had a problem correct were asked to help others, and the period closed while this work was in progress.

What were the educational values of the recitation? As it was conducted, certain isolated facts that might serve for examination at the end of the term, and that might possibly at some time prove useful, were presented. In reviewing them the motive of the pupils was ignored, memory being mainly appealed to; and during the forty minutes no pupil expressed any opinion or took any initiative in a way worth mentioning. The value was slight, to say the least.

What might have been accomplished? The pupils being girls, they would probably forget how to solve problems in bank discount long before wanting to make any practical use of it. For them there could hardly be much purpose in the review of the arithmetical processes alone.

But the function of a bank as a public institution, particularly some of the advantages in which the public are directly concerned and which can be easily comprehended, might make this a topic of much general worth and hence of interest to these girls. They might be interested in the conditions under which a bank lends money, the security necessary, the rules for interest, the need of promptness in payments, and a comparison of the advantages of borrowing money at a bank with the advantages of borrowing it elsewhere. In brief, the value of the topic is found in its various relations to ordinary persons. If it has such relations — numerous and close — it will appeal to the motives of young people, will require judgment of values as well as organization of facts, and will allow the exercise of initiative. The central idea would still be quantity; but arithmetical processes themselves would be subordinated to questions more worth study.

There are certainly many other topics in arithmetic far more valuable for children of this age than bank discount; so many, indeed, that this topic should receive no attention in the elementary school.

A SERIES OF LESSONS IN MUSIC

The following statements are the result of ten lessons, ranging from the first grade through 7B, in the same school, and all given by a supervisor of music. As the same plan underlies all the lessons, we shall describe it, giving illustrations from different grades.

(a) First Kind of Exercise

The first work consisted of exercises in breathing and tone production. The children in the first grade were told to take in a full breath and sing a pleasing tone while letting out the breath, imitating a tone given by the teacher. In the upper grades similar exercises were carried on by simply saying, "Inhale and exhale," the teacher singing the model tone again. The pitch of these tones was high and of good quality, and it produced a pleasing effect. Sometimes the tone was sustained, sometimes a scale was sung down and up. In the upper grades changes as to various vowel tones were included.

(b) Second Kind of Exercise

After the tone exercise the children took their seats, and technical questions with reference to pitch and rhythm were introduced. For questions in 1B children were drilled on the numbers 1, 6, 4 downward from the upper octave. In the second grade the teacher spent the time attempting to have the children appreciate two beats to the half note. In the third grade notes and rests were put on the blackboard. Children also sang the Mother Goose words to various dictations at the board, thus showing some independence of the syllable names. In the fifth grade the nature of the slur and tie was taken up. In other grades sharp four, flat seven, and divided beat were considered. This work was done at the blackboard.

(c) Third Kind of Exercise

This was followed in the grades from the third on by a third type, in which the book was used, tests being given to show the power of the children to sing at sight.

(d) Fourth Kind of Exercise

A fourth type of work was singing some song that had already been learned. Occasionally this fourth step would follow immediately after the vocal exercise.

The relations of the teacher with her pupils were very friendly and happy. The order and attention were all that could be desired, from a formal point of view. The instruction being given by the supervisor, carefully prepared plans were furnished by her to each teacher, indicating the successive steps, whether in the tone study of the first, the rhythm or pitch work of the second, the sight reading of the third, or the song singing of the fourth.

Organization

While each type of exercise was, no doubt, logically related to the same type held on the preceding day, in a given class, there was little sign of relationship of the four types to one another within any given lesson. For example, the voice exercises were independent of the study of pitch and rhythm; the latter study was unrelated to the sight reading in the book; and all three lacked connection with the song singing. Thus each lesson presented four separate strata, and a lesson of twelve minutes was controlled by four distinct aims rather than by one.

Provision for Motive

Ostensibly, the object of all the exercises was to learn to sing, but while the relation of each task to this object might have been clear to the teacher of music, it could hardly be appreciated by the pupils.

If the tone and vowel exercises had been followed im-

mediately by the song, so that the children could have realized that the deep breathing and proper pronunciation of the vowel affected the way the tone sounded, the purpose of what was done would have been obvious, and the children could have coöperated toward accomplishing the end. Or if the technical drill on rhythm and pitch had dealt with the specific difficulties of the sight-singing exercise that was to follow it; or if the order of these two had been reversed; or if a song had been sung and its difficult parts had been taken for special practise, in order to get better rendering; then the notation problems and other technical work could have been mastered under the influence of a normal motive.

By failing to relate the various forms of practise to the ends they served in better song singing, the plan that was followed cut out all possibility of having the pupils — except the most musical ones — realize any purpose in what they were doing, except when they were actually singing songs. Here the pleasure in the song justified the activity.

Consideration of Values

This omission of purpose for the pupils made it also impossible to exercise their judgment with reference to the success of their efforts. Each exercise was peculiarly arbitrary. For instance, nowhere in the ten lessons was there any intimation that the reason the high tones were sung first was to enable the children to bring the qualities of these pleasant tones into the lower part of the voice, or that the vocal exercise was a means for them to produce better low tones. The result was that in the song singing the lower tones had the chest qualities that the vocal exercise was peculiarly adapted to counteract. If the pupils had realized the relation between the vocal exercises and the low tones desired, they would not only have had a purpose for their work in these exercises, but there would have been a basis for judgment, on their part, of the kind of tone they were producing in their songs.

The same principle holds in the relation of the technical exercises to the purpose they served in the more adequate reading of the songs, or exercises. For instance, if the necessity for holding a tone two beats grew out of the fact that the song required it, and that it did not sound as well without it, a purpose would have been established for learning to hold a tone two beats long when necessary. But to practise two beats, as an abstract exercise in a series of mathematical tonal relationships — while it might eventually develop a technique that could be applied — almost entirely destroys the advantage that would come from the awakening of the pupil's own thought in relation to what is being done.

Provision for Initiative

On the few occasions that the children were asked to volunteer any preference, especially in reference to songs that they wished to sing, they showed interest; and they would probably have responded freely if there had been more development in the instruction. But such spontaneity was prevented by the fact that most of the time was devoted to independent technical exercises that made no appeal to their imagination or preference.

Summary

The series of lessons was admirably conducted, so far as technique alone is concerned. But they were poorly organized, in that they had been planned with reference to the purposes as the adult sees them, and left the pupil in the dark as to the object of the various activities required of him. This lack of motive made it impossible to appeal to his judgment, for he could have estimated the quality of his own performances only in the light of the objects that they were expected to accomplish. Finally, as the pupil was not an intelligent coöperator in the process, little spontaneity was secured.

PHYSICAL TRAINING — TYPICAL LESSONS

GRADE II — BOYS

Class stand. Open windows.

Arm stretching — 8.

Marching.

Breathing — 4.

Knee bending — 16.

Head turning — 8.

Class sit. Close windows.

The teacher, with syllabus in hand, directed the class in a mechanical, lifeless manner. During the marching she paused between the counts to call out, "Chest high — Keep your shoulders down — Push your hips back." These coordinations being beyond the voluntary control of a small child, the results were exaggerated, faulty, and unnatural positions. As classes were passing through a hall, a principal's attention was called to these positions. His reply was, "Thank goodness, the children can't hold them long."

During this period the boys' eyes were fastened upon the teacher. They stood at "attention" for the entire period. Their faces did not radiate a suggestion of interest in the things they were doing. There was a feeling of severe effort in the room. The teacher's manner and voice intensified this. When the children sat there was a sigh of relief from both teacher and pupils. Asked if the children enjoyed the gymnastic work, the teacher said, "Not as much as they do games, but they have to have it."

GRADE IV — GIRLS

Class stand.

Arm stretching sideways — 16.

Breathing — 4.

Charging forward — 8.

Head turning — 16.

Trunk bending — 16.

During the time this lesson was being given the children were rigid, quiet, and unnatural. Not once did a head turn unless at the teacher's command. Their hands were held close to their sides, and not an eye was turned away from the teacher. The rhythm was indicated by the snapping of the teacher's fingers, and not once during the period did she vary the rhythm. The commands were given in a cold, harsh voice, and the teacher took no part in the exercises. She stood apart from the class and read the exercises from the syllabus. At the command, "Class — sit," the little girls noiselessly sat, took their books, the windows were closed, and the day's work went on.

When the teacher was questioned regarding the relative amount of time given to games, she explained with emphasis that she had given her last game in the class room. The time was when she attempted this, but experience had convinced her of the folly of such procedure. Her aim is to make the children feel that when they enter the class room they are there for work. She believes that work and play form a poor combination in the class room. Now, they have gymnastic work each day in the class room, and the children are allowed to play in the court a few minutes during the afternoon recess. They are impressed with the fact that this period is in no way related to their class-room work.

GRADE VIII — BOYS

A relay race had been planned for this class. Hearing the good news, the boys commented upon the situation as they entered the room. By way of explaining this disorder the teacher said that he could always tell when the boys were expecting a game. But the enthusiasm waned, somewhat, when they were put through a ten-minute drill with iron dumbbells, preceding the race. The exercises were:

Marching — Facing.
Charging with trunk twisting.
Trunk bending.

These exercises are typical of those usually given. The lesson was carried forward with military precision, and with many indications of fatigue. When the command was given to "place bells," little time was lost and spirits immediately revived.

The relay race followed and was enjoyed by all. It was characterized by a spirit of good will and wholesome competition.

This instruction — so far as the first two exercises are concerned — not only fails to meet the standards set up, but in very important respects it directly opposes them.

There are great possibilities in the games; but they are so slighted, in the time devoted to them, as well as in other respects, that they are treated more as a means of recreation than as an instrument of education capable of accomplishing the highest aims of teaching by the use of maximum skill.

HYGIENE — TYPICAL LESSONS

Grade VI, boys; grade VII, boys; other lessons also.

Above the fifth grade the work in hygiene in this particular school is carried on according to the departmental plan, one twenty-minute period per week being given to this work.

For the lesson observed the text used was Eadie's "Physiology and Hygiene for Children." Each boy was given a book. As the teacher called the names, the boys stood, and with much difficulty read the formal, technical text-book discussion of the following topics:

Drinks which contain alcohol.

What is alcohol?

How malt liquors are made.

How distilled liquors are made.

What alcohol is like.

Is alcoholic liquor a food?

During the lesson a few questions were asked. Among them, "What is alcohol?" One boy replied, "Alcohol is a poison medicine." After he had read "How malt and distilled liquors are made," he seemed to have gained no clearer views on the subject.

The reading proceeded in a monotonous way for twenty minutes. In that time most of the boys had read at least one paragraph aloud, and had struggled manfully with carbon dioxid, ferment, yeast, vapor distillation, and other words equally suggestive.

Throughout the lesson there was felt the influence of law-required instruction. The subject-matter had been chosen, not because it seemed related to the needs and purposes of the children concerned, but because conformity to law had made the use of such material necessary. The teaching was done in obedience to law, in a perfunctory manner, and without interest on the part of either teacher or pupils.

The argument is advanced that such instruction is justified by the fact that it is required by law. The law does require that instruction in the effects of alcoholic drinks and narcotics be given below the second year of the high school and above the third year of the elementary school, "with suitable text-books in the hands of all pupils, for not less than three lessons a week for ten or more weeks, or the equivalent of the same, in each year." The law does not state, however, that the work shall be confined to one text-book; nor that it shall be given in a mechanical way, entirely unrelated to life and to the other subjects in the course of study; nor that the thirty lessons shall be given consecutively. We believe that, if these required lessons were planned as they might be, and wisely distributed, the required number could be given and the required subject-matter discussed without placing undue emphasis on the phases of this subject that are not only uninteresting but unwholesome.

Discussion of the organization of subject-matter would

involve only a criticism of the text-book used, for there was not the slightest deviation from the text-book arrangement. No topic was given more emphasis than another. If the teacher felt that the making of malt liquors should be given more stress than the making of distilled liquors, his manner did not indicate it. At the close of the period he was asked his opinion regarding the value of such instruction. He replied, "Worthless."

In five other lessons observed in this building, two 7A grades considered the subject of bones and digestion; two 7B grades, the heart and respiration; and the 8A class, alcoholic drinks and tobacco. All of these recitations were conducted in the same manner. The boys read, and the teacher interrupted with occasional questions bearing directly upon the reading and involving text-book answers.

During a lesson on the heart and circulation, the boys struggled with the size, position, shape, and structure of the heart, the blood vessels, the composition of the blood, and the process of circulation. After they had read the paragraph describing the red and white corpuscles, the teacher asked, "What are the red corpuscles for?" The answer came promptly, "The red corpuscles are to fight the white ones." Although the boys had their books open before them and had only a moment before read about the work of the red corpuscles, few realized that the answer given did not agree with the teaching of the text.

The lesson with the 7A boys included the following topics:

- Uses of the bones.
- Form of the bones.
- Structure of the bones.
- Materials of which bones are made.
- Growth and repair of bones.
- Bones of the head.

As in the other recitations, the boys read "by turn." Answers to the questions asked indicated that the pupils

were giving little thought to the subject-matter. They were simply pronouncing the words which they saw on the pages of the text. When the teacher was questioned regarding the value of such material, he stated without hesitation that it had little practical worth, but that he was giving it in order to conform to the prescribed course of study. The syllabus for the 7A grade, while dealing mainly with the anatomical structure of bones, etc., does, however, suggest some few practical applications of the subject-matter studied, namely, round shoulders, spinal curvature, and adjustment of desks. The teacher's criticism may have been just, the material may have been inappropriate, but he had failed nevertheless to make use of the few vital points of contact with the child's life which the syllabus affords.

The criticism passed upon the work in hygiene in this school may seem severe; yet it is typical of the work done in many of the schools. In general, it fails to meet any one of the standards we have been using.

CHAPTER VI

GENERAL APPLICATION OF THESE STANDARDS IN KINDERGARTEN AND ELEMENTARY INSTRUCTION

METHOD OF JUDGING THE RELIABILITY OF CONCLUSIONS

THE analysis of the recitations presented in the preceding pages illustrates how instruction can be judged by use of the standards proposed. Now we come to the conclusions reached touching the quality of instruction throughout Greater New York, as judged by these standards.

These conclusions are the immediate result of facts gained at first hand. Kindergartens and schools, taken at random, have been extensively visited, and teachers have been personally interviewed, in order that instruction in the classroom, and the attitude of the teachers themselves, might be directly studied.

But it was realized that the quantity of data secured in this way would necessarily form an insufficient basis for conclusions in regard to the work of 15,000 teachers. To collect enough facts, by direct observation, on which to base judgments that could be trusted would require a much larger number of expert observers and a far longer period of time than the plan of investigation allowed.

The conclusions thus reached needed, therefore, thorough verification. And it was not difficult to discover valuable means for doing this.

The original ability of the teacher is only one of the things that determine the quality of classroom instruction. The abilities of her superior officers are, likewise, important factors. The curriculum is a great aid or an

obstacle to good results, according to the insight shown in selecting its subject-matter; the syllabi, which interpret this curriculum and offer suggestions on method, are a guide and a source of inspiration or depression to teachers according to the definiteness of statement and the breadth of view that they evince; and, finally, the supervision by principals and superintendents tends to produce an enthusiasm that will manifest itself outside of school in extra preparation, and in the class by alertness to each pupil's condition; or it tends in the opposite direction. These other influences, taken together, must very greatly affect the atmosphere that surrounds the teacher. Without their positive support instruction can hardly be good; and if they are doing their work fairly well instruction is not likely to be poor.

An extensive study of these factors, therefore, has furnished the data necessary for verifying the conclusions reached by direct observation. If these factors are found — owing to the quality and quantity of their influence — to oppose the conclusions previously reached, then those conclusions are rightly subject to serious question. If, on the other hand, they plainly verify those conclusions; if, indeed, their influence is so potent that it would seem sufficient to produce the very conditions that have led to the conclusions — then the conclusions may be considered to be reliable.

These other factors, therefore, are related to the statements here made, as proofs; and judgment as to the reliability of these statements must be waived by the reader until the proofs, that follow in later chapters, have been carefully examined.

INSTRUCTION IN THE KINDERGARTEN

Inculcation of Purposes in Children

Specific and childlike aims tending to call out a high degree of effort are very prominent in the kindergartens.

A certain form is folded to serve as the mount for mother's valentine, to be presented at the valentine party of the Mothers' Meeting; a bag is folded and sewed, to be used in the postman's game; little houses are carefully cut and pasted for the group work in which a city street is represented; blocks are evenly laid by another group of children to represent the sidewalk of that same street; it is suggested that a certain lullaby would be nice to sing to the baby at home, and the children put new sweetness and interest into the singing.

These detailed purposes play directly into the broader aims that are plainly in evidence in the kindergarten. Such are: a love of stories, of plants and animals, of games, of objects of beauty, and of constructive work—a love that finds expression in little deeds, such as those named, and that leads to more far-reaching hopes and plans.

Attention to Organization

Most kindergartners endeavor to organize the more or less random and instinctive activities of even their youngest children. At the kindergarten age the organization of ideas takes place largely through the organization of activity, the ordered act being considered the very best evidence of ordered thought. A representative play is worked out bit by bit, until a reasonably finished whole results; a simple little dance is created out of selected movements; a piece of group building is undertaken wherein each child's work contributes to the whole, but must occupy its own subordinate position; all such efforts call for organization in the same sense as does the high school student's essay. The children are less conscious of the process, but they profit by it just as truly. One seldom visits a kindergarten without observing that the kindergartner herself is carrying the idea of organization constantly in mind, and without observing also that the children are doing the same thing, to some extent, in their attention to sequence, to the interrelation of facts, and to grouping.

Indeed, one of the most serious faults of the kindergarten is found in its overdevotion to sequence, particularly to the logical sequence of the adult, which is probably even more a source of torment to some children in the kindergarten than to any in the elementary school. The kindergarten lesson, described elsewhere, is an illustration.

But while there are such excesses here and there, we are convinced that on the whole an emphasis is placed upon organization of ideas in the kindergarten that is generally in accord with the worth placed upon it in life outside.

Attention to Relative Values—Imagination and Reasoning

The kindergartner makes noticeable provision for relative values. Emotional response, appreciation, preservation of an inquiring attitude of mind, socialized behavior, seem to be regarded in the regular instruction as of at least equal importance with knowledge. The general viewpoint of the kindergartner is that whatever is done in the kindergarten is of value to the extent that it counts, or functions, in life. Hence the tendency to weigh worth is common here, with both teachers and children.

Again, however, a defect is to be noted; namely, an extreme devotion on the teacher's part to technique, to precision, and to exact imitation now and then, which tends to influence the children to forget all about the real worth of things. This is true particularly in the use of materials, and is not representative of the work as a whole.

Provision for Initiative and Independence

Kindergarten teachers have an enviable opportunity for encouraging the exercise of initiative and individuality of children, because uniformity is not demanded. Without a fixed program and without rigid requirements of accomplishment, there is every incentive for teachers to allow pupils to do original and creative work; and this oppor-

tunity is not lost. It is common for children to set up aims, to organize their activities, to suggest subject-matter or experience that forms the basis for their play and work, to choose songs, stories, games, and materials, and to lead in many of the undertakings.

While this seems to be the dominant tendency, it is also evident that in quite a number of the kindergartens dictation exercises and ready-made play that require complete submission on the part of the pupil, are so prominent that they directly oppose self-expression and self-reliance.

On the whole, there are two very distinct currents observable in the kindergartens. The one represents a slavish devotion to the adult point of view in the selection of subject-matter and to adult logic in its presentation, resulting in rigid organization, ignoring of relative values, and neglect of the child himself. The other shows the opposite tendencies. Which of these two shall finally prevail is a matter of grave concern, requiring the constant watchfulness of all who are especially interested in this field.

But at present we feel little hesitation in saying that the kindergarten, as a whole, meets the test of the four standards set up, in a satisfactory manner; and that therefore the instruction there rests on the higher plane, i. e., it is good at present and promising for the future.

INSTRUCTION IN THE ELEMENTARY SCHOOLS

The Working Theory of the New York City Elementary Schools

Back of the multitude of ideas and practises related to the elementary schools there are four convictions that are remarkably prevalent. One pertains to the necessity of uniformity, and the thought runs thus:

There are approximately 14,000 teachers in the elementary schools. That is an enormous number. All reports

in regard to them, all communications to them, must be systematized. All plans to influence them must be made for the mass.

There are approximately 650,000 children in the elementary schools, sometimes over 4,000 in a single building. The absolute necessity of mass action in fire drills is self-evident; its reasonableness in filling and emptying buildings, under ordinary circumstances, as well as its need in the external handling of large classes, is likewise evident.

Turning to the instruction itself — if teachers are to be rated for advancement, as they must be, instruction must be standardized; if the children must be rated in their attainments, as they must be, the results of instruction must also be standardized; hence, one curriculum, one time allotment for studies, one method, for all the schools; that, so far as possible, is a necessity! The degree to which standardization is established, and mass action secured, is one of the measures of efficiency.

The second conviction pertains to the essence of the course of study. A curriculum may, and no doubt should, contain many things, of many kinds; but its very core is found in those facts and those kinds of skill that can become automatically usable.

The third conviction pertains to the factor in scholarship that is most worthy of emphasis. Many things are necessary to proper study, but the most desirable element is accuracy in details.

The fourth conviction pertains to the time when the pupil may be expected to use what he learns in school. Of course, some things that are learned, such for example as writing, reading, a few facts in geography and in shop work, are usable immediately. But that is accidental. The school period, on the whole, is a period of storage for the unknown future; it is a period for collecting facts without reference to their present use.

Here, then, is the condensed educational theory of the elementary schools:

- a. On account of the size of the system, uniformity is necessary in teaching, in rating teachers, in handling pupils, and in the curriculum.
- b. The principal subject-matter of instruction is what is automatically usable.
- c. The leading element in scholarship is accuracy in details.
- d. The time for the pupil to use his knowledge acquired in school is the distant future, — not now.

Of course, this theory is not universally accepted; heretics are to be expected in any denomination. Some striking exceptions to its spirit are found in the variety of text-books, for each study, allowed in the schools; also in some very prominent movements within the system, as in the special classes for defectives, the outdoor classes, and the individual care of children touching their physical defects. In addition, many of the teachers and principals are reluctant supporters of the theory. But a majority of both seem at least reconciled to it; and most of the superintendents are evidently ardent in its support, inasmuch as it originates with them. This theory helps to explain the quality of instruction, as we shall see later.

Effect of Instruction on Children's Purposes

What is the relation of the teaching to the ambitions and plans of children?

Although problems, as they arise in daily life, are the main stimulus to the thinking that goes on in the world, the origin of plans and purposes, the instruction in the schools is not usually organized around such problems. In composition, for instance, it is rare to find pupils writing with any purpose beyond satisfying the teacher. Grammar does not pretend to make young people conscious of new objects in life. Geography consists merely of facts that one may some day want — but not now; arithmetic represents the same viewpoint.

Even in those subjects that naturally appeal to the imagination and enthusiasm of children, such as literature, music, and shop work, there is a strong tendency to ignore the child's attitude. The recitation in literature, described on page 25, in which the accurate enunciation and pronunciation of individual words were the principal things talked about, is an example. The instruction of music plainly subordinates the children's motives to sight reading, and the shop work in the eighth grade allows the sequence of tools and of materials rather than child nature to determine the choice of objects to be made.

It is always to be kept in mind that there are striking exceptions to the general statements here made. But, judging from the instruction observed, there is reason for believing that in general the inculcation of purposes in pupils, through instruction, is scarcely thought of in the actual class-room work.

Effect of Instruction on Children's Organization of Ideas

When we turn to the organization of subject-matter, we find certain studies, such as beginning reading — when the Ward method is used — arithmetic, music, and most of the work in construction, standing for a sequence that is rigid. While sequence, as an element in organization, is a good thing, this is a sequence of the scientist, not of the child; and it usually has little effect upon a child's thinking, beyond causing him to dislike the subject.

The chief way of testing the influence of instruction on children's organization of ideas is to examine into the character of their responses to the teacher's questions. If these responses are pointed and forceful, the pupils have gotten into the habit of looking for a central thought — such as an underlying cause in history or geography — grouping their facts around it in sequence, and in considerable number. If they have not yet succeeded in this, but are striving in this direction, their efforts will easily be observable. If the teacher is attempting to influence them in this respect, the

fact will be shown also in the pointedness and, particularly, in the scope of her questions.

Our visits to class rooms furnished no evidence that stress was being laid upon this matter. The responses of pupils were almost invariably brief and scrappy — a condition directly favored, rather than opposed, by the character of the teacher's questions.

Effect of Instruction on Children's Weighing of Values

In visiting schools it is very easy to observe whether or not much attention is given to relative values. But the writer visited twenty classes, in several different schools, before noting the slightest reference to the worth of things. Then a teacher in a reading class, feeling dissatisfied with the rendering of a certain sentence, said: "You do not seem to understand which word is most important in that sentence. Which one is, do you think?"

The prevailing attitude was that each thing taught, every fact, was taught because it was required; the curriculum called for it. Being necessary, then — in fact, absolutely necessary, practically speaking — what reason was there for stopping to discuss its relative importance? That would be superfluous! What was wanted was *results*; and there was no time to lose.

Effect of Instruction on Children's Initiative and Self-Reliance in General

It is by no means easy to show how, in the teaching of a given topic, the exercise of initiative can be transferred from the teacher to the class. But whether such a transfer is taking place, or whether at least it is being attempted, is very easy to see. Judging from the practise observed, there is as a rule almost no planning for the pupil's growth in self-reliance or self-expression. The teacher puts the questions, makes the corrections, and immediately directs every turn that is made.

In handwork, for example, we find a situation that seems typical. Pupils there are not allowed to experiment. To a boy who suggested another possible way of doing something an instructor was heard to say, "If you know a better way than mine, walk right up and instruct the class." Sarcasm is the deadly weapon often used by numerous shop men to wither any initiative or originality that does appear, and to reduce boys to uniform subservience and docility.

Dictation, as a method of instruction in shop work and drawing, is very prominent. The children are told what to do and how to do it. Telling is reinforced by demonstrations. Usually when pupils cannot follow the verbal instructions of the teacher, they may follow or copy drawings, or detailed instructions from blackboards, charts, models, or notes.

In design there is practically no opportunity for initiative, save in choice among several designs offered in a few of the schools. Original designs have no place in the present plan. Slight variations in finishing or decorating some sewing projects, some selection as to colors used in weaving in the lower grades, slight opportunity for choice of models offered to be drawn, and some variation in the finishing of the pieces of shop work in the latter part of the course are permitted. But the limitations are so stringent that variation is discouraged rather than encouraged.

On the whole, then, the New York City elementary schools are not attempting to develop the initiative and self-reliance of children through instruction.

Conclusions upon the Instruction in Elementary Schools

Thus, not one of the standards proposed for judging instruction is satisfactorily met. Indeed, the working theory mentioned above shows attention to be systematically directed *away* from these standards.

Take, for example, the first article in that theory — the belief in uniformity. Its influence is directly opposed to

the development of individuality in children; variety is not obtained through uniformity.

The second article of the theory is the belief that what is automatically usable constitutes the core of the curriculum. That belief throws the main emphasis on the formal or mechanical portion of the subject-matter; i. e., upon symbols in the three R's, location and map drawing in geography, dates and minor details in history, reading of notes in music, names and superficial description of objects in nature study, and technical processes of construction. That is just the kind of subject-matter that is commonly recognized as deadening to motive, rather than a source of it. It is a very necessary part of a curriculum; but it must be subordinated to other subject-matter and carried by it, if the instruction is to be inspiring.

The third article of the theory is that the leading element in scholarship is accuracy in details. That belief tends to divert attention from the grouping of facts according to their relations, to the isolated, individual fact. And, special merit being attached to details or little things, the larger truths, such as must be considered in the principles of the various studies, in the deeper causes, in summaries, and in broad questions from the teacher, all of which are based on an extensive association of ideas, are at a discount.

And the fourth article is that children are to acquire their knowledge, not for present use, but for the unknown future. This belief, to the extent that it is acted upon in the selection and presentation of subject-matter, destroys both the motive for the weighing of values by children and the basis for doing it. For the worth of ideas is determined by the degree to which they are significant in one's life; but, if they are not significant when they are acquired, there is no reason for evaluating them, and there is no relation to them close enough to furnish a basis for perceiving their worth.

We do not assert here that the value of a child's knowledge is confined entirely, or mainly, to its present use; nor

that children are unable to use, and should not use, their imaginations, so as to project themselves into the future and look at matters somewhat from the social viewpoint. But we do say that if children are to consider the value of knowledge, they must feel its present significance to them.

In general, the standards that we have proposed test instruction by the extent to which, through the acquisition and application of knowledge, it affects the growth of children in those mental processes or habits that count most in actual living.

On the other hand, the articles of the working theory above referred to are not plainly concerned with the growth or development of children; they direct attention primarily to finished products in the way of knowledge and technical skill.

According to the standards proposed for judging instruction, that now given in the New York City elementary schools is — in spite of many exceptions — on a low plane, poor in quality, and discouraging for the future.

It is very important to bear in mind, however, that this instruction is no worse than that found in many other places. If different standards had been adopted — in fact, such as have usually been applied in judging schools — very different conclusions might have been reached. But if one accepts the standards proposed, one must come to the conclusions reached.

Attitude of Teachers

A matter intimately connected with the instruction, and helping to explain its quality, is the attitude of the rank and file of the class-room teachers. That attitude is not satisfactory and their thought, according to our findings, runs somewhat as follows:

In the first place, they are hampered by lack of authority either to punish unusually troublesome children adequately, or to have them punished. The result in many a room is a constant struggle to “get on some way or other,” leading

to limitless waste of time and energy, and not seldom to loss of health by the teacher.

In the second place, they do not feel free. They are given no authoritative voice in helping to select the curriculum that they must present, or in dividing the time among the several studies, or in choosing the text-books that they use, or often, even, in determining the methods that they follow. On every hand they are told what to do and how to do it.

One reason for these many limitations is the fear, on the part of the higher authorities, of serious blunders by weak teachers. But the effect is that the teachers as a body are treated as weak teachers, and distrusted.

Under these conditions they cannot be expected to develop the initiative and individuality of their pupils; they are not allowed initiative or self-expression themselves; obedience is their leading merit; there is little provision, in the entire system, for their own individuality. More than that, any independent efforts that they might make in the direction of organizing subjects in a new way, or of stressing relative values to an unusual degree, or of providing for motive in an original manner, would run the risk of disapproval by their superiors.

In the third place, there is lamentable lack of inspiring leadership by those persons in authority over them, i. e., the principals, special supervisors, and superintendents. The main relation of superintendents to them is that of inspectors merely, or judges, not of helpers; and the principals are too busy with other matters, or unable for other reasons to come to their aid in a vigorous, constructive manner. In consequence, no one in the system is discussing aims and principles with them and showing how these should affect their teaching.

This is the expression of convictions held by teachers. There are many exceptions, due partly to the school and partly to the individual. But our findings convince us that such exceptions are unusual. Our findings further convince

us that the teachers as a rule are conscientious and energetic, but that in respect to their profession they are static and depressed.

Whether or not the attitude of the teachers is justified will be, at least in part, revealed later, particularly when the curriculum and syllabi for the elementary schools, the supervision by principals, and the work of the superintendents are under discussion.

CHAPTER VII

RECOMMENDATIONS

I. ON UNIFICATION OF KINDERGARTEN AND PRIMARY SCHOOL

THERE is a striking contrast between the kindergarten and the elementary school, as the two are now conducted. The key to the difference is found in two facts: (a) that while, in the kindergarten, the acquisition of knowledge is regarded as a mere means to larger ends, throughout the primary school it is made the dominating purpose — the end itself; and (b) that the knowledge acquired in the kindergarten is chiefly that which can be a source of inspiration; while the knowledge chiefly emphasized in the primary school consists of symbols and formal facts, as for example in the three R's and spelling.

The result is that these two parts of the system fail to harmonize. Indeed, they are so unlike in controlling purposes, curriculum, methods of presentation, in the attitude of teachers toward pupils, and even in the appearance of the rooms, that the primary school not only abandons important lines of influence begun in the kindergarten, but tends to nullify them. Such a dualism in the theory and practise of educating children — within a single system — is most incongruous and wasteful.

Beyond doubt there is a real difficulty here in the fact that a time must come — usually recognized to be at about six years of age — when symbols must be attacked with vigor. But that is insufficient reason for the almost complete abandonment of valuable influences for the development of habits that it has required one, two, or three years

to establish. Both plans can hardly be sound; and, according to the standards used for judging the quality of instruction, it is the elementary school that needs the greater modification. The question for serious study therefore is, Can the elementary school continue the main lines of work begun in the kindergarten, while giving mastery over symbols?

2. ON LIMITING UNIFORMITY

The extent to which uniformity is necessary in a great system of schools is one of the most important questions among those suggested in this part of our report.

Possibly there cannot be too much uniformity of procedure in the business management of the schools, and there are weighty arguments in favor of much of it in instruction. On the other hand, excellence in method of teaching, as commonly conceived by educators, consists in the close adjustment of subject-matter to individual experience and peculiarities. It thus implies the highest degree of diversity in practise. Uniformity of system is hardly the means of securing this diversity. A system of schools, therefore, in which uniformity is believed in and practised, without much limit, cannot be expected to reach a high degree of excellence.

3. ON THE STATUS OF THE TEACHER

The degree of freedom of the teacher should be more definitely fixed. If obedience is to be one of her (his) principal virtues, then every one concerned should understand that fact. On the other hand, if a considerable degree of freedom on her (his) part is recognized to be necessary, as a condition of developing self-expression and self-reliance among pupils, and of securing the teacher's own growth, then a well-developed plan by which freedom is guaranteed should be put into print. Such a plan might

do much to allay present discontent among the teachers. At any rate, the task rests upon the higher school authorities to discover the reasons, and the remedy, for the present dissatisfaction among the teachers. There is no doubt about its existence.

4. ON DISCIPLINE OF UNRULY CHILDREN

The question of the discipline of unruly children seems to us one of those that most urgently demand attention.

In consequence of the great size of most of the schools, there are sure to be, in almost every one of them, a few children who are boldly and persistently disobedient. Some of these are more or less rowdyish and insolent, but hardly vicious; others approach the criminal in character — sometimes attempting to start a panic in fire drill, by shouting and running; sometimes using foul language to the teacher or throwing a book or a knife at her; sometimes remaining away from home, in bad company, three or four nights at a time; sometimes beating their mothers, and frequently defying both class-room teacher and principal outright.

A small percentage of these, the very worst, are now provided for in the school for truants in Manhattan, the disciplinary school in Brooklyn, and the parental school in Queens. In order to have them transferred to one of these schools they must have a hearing before the district superintendent, and the sentence to commitment must be approved by the parents and also by the city superintendent of schools. Or the unruly child may be sent to the children's court for trial and sentence.

But under present conditions not many of these children are likely to be disposed of in this way, for several reasons:

- a. These schools can accommodate only a small number at best; and it does no good for the district superintendent to recommend the commitment of a child to such a place, if there is no room for him there.

- b. There is no certainty of promptness in the settlement of such cases — for various reasons; nor is there certainty of a final sentence. For example, no pupil may be committed who is suffering from defective nasal breathing and the like until he has been subjected to operative treatment, and time has elapsed to allow for a possible cure. Also, there seems to be an unwritten tradition that a pupil shall be tried in three different schools before being sentenced to one of those above named. The delays and the uncertainty of the outcome, we are assured, are about the same in these cases as in our criminal courts.
- c. The principal has a special reason for bringing very few such children to trial. For, if he does bring one, he must spend much time in preparing and presenting the case; he and his teachers must be placed on the same plane as the pupil in offering evidence, so that not seldom they themselves, rather than the pupil, seem to be on trial; he cannot but fear that his district superintendent, whose rating influences promotion and rank, will consider him incompetent in management; and he is very likely, finally, to be instructed to take the child back and “give him one more trial,” or to transfer him to another school.

Thus, in spite of much trouble and humiliation on the part of the principal and teachers, the pupil may seem to be sustained and the influence of the principal himself throughout his school undermined as the result of such a hearing.

- d. Finally, it is very plain to teachers and principals that the transfer to one of these schools is not at all what many of these children most need. A large portion of them are only semi-incorrigibles, capable of being saved from commitment if effective punishment were allowed on the spot.

Considering the city as a whole, therefore, there is a large number of children — a few in this school and a few in that — who are extremely disobedient and disorderly, often defiant, who must be kept within the school; there is, practically, no other provision for them. They have little respect for authority, little regard for the rights of others, and little fear beyond that of bodily hurt. What can and does the principal now do to control these?

First of all, neither he nor the class-room teacher may *touch* them in the way of administering punishment. A by-law of the Board of Education forbids that. And these children are as well acquainted with that by-law as are the teachers themselves. In fact, they have not infrequently dared a teacher or principal to lay hands on them, threatening in that case to report the action to the Board of Education, to have them fined, etc.

The principal can try moral suasion, can appeal to the parent, and can use many other ordinary means for securing control, which will sometimes prove successful in spite of the hardened condition of the pupils.

Or he can make threats of things to come — awful but vague — and untrue — and sometimes succeed in that way.

Or he can do any one of four other things:

- a. He can make use of ridicule or sarcasm; or can torture children by placing them in unnatural positions, standing or sitting, until they approach exhaustion.
- b. Or, in righteous indignation over a pupil's intolerable conduct, and in defense of his own self-respect or that of a teacher, he may chastise a pupil vigorously, running the risk of later punishment himself.
- c. Or, taking a child off by himself, away from all possible witnesses, he may mete out to him all the punishment that he thinks is deserved. Without witnesses the pupil can never prove anything against him.
- d. Or, finally, he may "smooth over the case," or ignore

it outright, leaving the responsibility upon the class-room teacher of getting on with each pupil as best she can.

As a result of numerous conversations with teachers and principals, and of correspondence also, we are convinced that all four of these methods are rather common, while the last is most common.

The results are of the gravest character:

Saying nothing of the fact that to many pupils punishments more cruel than corporal punishment are applied, and that the by-law forbidding corporal punishment is often ignored, the great fact is that many class-room teachers are at their wits' end every day to discover how to give instruction while certain pupils constantly cause disorder. A large portion of their time and energy is expended merely in trying to get on with such pupils, until ill-health results from worry and exhaustion.

Although any educational system that enforces compulsory attendance is under obligations to protect each pupil, not only from physical but also from moral contagion, yet it is a fact that the great majority are influenced harmfully, through no fault of their own, by observing examples of disobedience.

Finally, the troublesome pupils themselves, conscious of the powerlessness of their teachers, become confirmed in lawless habits in the very place that is intended to teach them to observe the rights of others; and these lawless habits, carried into after-life, lead directly to the lawless gangs and rowdyism so common today.

Convinced of the seriousness of these facts, we make the following recommendations:

- a. That the by-law of the Board of Education expressly forbidding corporal punishment be rescinded. The state law touching assault and battery sufficiently covers cases of unwarranted severity toward pupils.
- b. That the number of parental schools for the most

depraved children be increased, in which the inmates shall be under constant confinement; also that the number of disciplinary schools in which the inmates shall be confined throughout the day be increased. That the mode of commitment to these schools be greatly simplified; that a special curriculum be allowed in each of these schools, peculiarly fitted to the needs of the pupils; and that corporal punishment be allowed in them.

- c. That in other schools (a) the principal and the few persons to whom he may delegate the right shall have authority to use physical force with pupils; or, when it is deemed advisable by the principal, one or more classes composed of troublesome children shall be formed, after the type of the present ungraded classes; and that in these special classes the principal and the teachers of such classes to whom he delegates the right, shall have authority to administer corporal punishment.
- d. That corporal punishment be inflicted only under the following restrictions:
 - (a) That each child first receive a medical examination;
 - (b) That, if possible, the written consent of the father or guardian be secured;
 - (c) That such punishment be applied only in the presence of some adult witness;
 - (d) That accurate records be kept of all cases of such punishment, together with the conditions that led to them and the mode of its administration.

We are convinced, from the data we have been able to gather, that these recommendations possess the following advantages:

- a. That the number of attempted commitments to institutions would be greatly diminished, thereby avoid-

- ing a great waste of time and energy on the part of district superintendents, principals, and teachers.
- b. That the mere knowledge on the part of the unruly pupils that they may be subject to corporal punishment for their wrongdoing will of itself make actual punishment unnecessary in a great majority of cases.
 - c. That the number of cases of corporal punishment in the city will be reduced below the actual number at the present time.

5. ON THE AIMS OF THE ELEMENTARY SCHOOL

The foregoing conclusions declare that in general the instruction in the elementary school is poor. It would hardly be so unsatisfactory as it is if the working aims themselves of the school were not so low. The most depressing fact about this part of the investigation has been our inability to discover either any general striving toward the higher aims of instruction or even signs of such general striving. Such signs, at least, would be in evidence if broad purposes controlled the field. This fact emphasizes the importance of a formulation by the school authorities of the main objects which elementary instruction should seek to accomplish, in terms that are significant to teachers and laymen alike and that breathe a broad spirit.

Courses of Study

CHAPTER VIII

STANDARDS FOR JUDGING VALUE OF STUDY¹

THE CURRICULUM AS DETERMINING QUALITY OF INSTRUCTION

THIRTY years ago the belief was often expressed that it made little difference *what* one studied, but all the difference in the world *with whom* one studied. That belief made almost any curriculum acceptable, and directed attention to the personality of the teacher and to *method* as the principal factors determining the effectiveness of instruction.

That belief, however, has been greatly modified. While no one will deny the importance of the teacher's personality, most persons will admit that the proper expression of personality and skill in method are both greatly dependent upon the subject-matter of the curriculum. Carefully selected subject-matter is prerequisite to skill in method of presentation. Without a good curriculum there is bound to be great waste.

JUDGING CURRICULUM AND SYLLABI

1. *Bases for Relation of Subject-matter to Children's Interests*

In harmony with the previous discussion of standards for judging the quality of instruction as a whole, the quality of the curriculum in particular is to be determined partly by

¹ While it was intended to include all the subjects of instruction in this study, lack of time compelled the omission of history and civics, penmanship, and foreign language.

its tendency to influence the tastes, purposes, and hopes of children. Any curriculum for the elementary school should have its content selected from among those experiences of mankind that have seemed most valuable. That is to be presupposed. But this selection can be indifferent to the tendencies, interests, and capacities of children in general, and of certain ages in particular, and aim only at present storage of facts and ideas that may count in a dim future, i. e., in adult life. Or it may be made with constant reference to the abilities, tastes, and needs of children at the present time. In the former case, motive on the part of children is overlooked; in the latter case, the extent of provision for it is accepted as one of the standards by which the curriculum is to be judged. We hold the latter view.

2. Initiative Evoked in Teachers and Children

A further basis for estimating the merits of the curriculum and syllabi is found in their attitude toward the exercise of initiative on the part of teachers and pupils. The syllabi in particular — being an interpretation of the curriculum and in addition containing suggestions on method — may show the subjects to be so attractive as directly to invite attack by children. They may suggest also so many different sequences of topics, and other procedures requiring choice, that they surround both teacher and pupil with an atmosphere of freedom and thus directly favor the exercise of initiative on the part of both. Or they can offer a skeleton so bare that it repels all who behold it; and they can, by offering no options and by repetition, so insist on certain suggestions of sequence and other procedures as to surround the teacher and finally, through her, the pupil with an atmosphere of restraint that tends to suppress all originality.

3. *Organization of Subject-matter*

The first great condition of the proper organization of ideas in the pupil's mind is that they be well organized in the curriculum itself. If they be scattered there, it is too great a task to expect the class-room teacher to establish order among them before putting them before children. One of the first characteristics of a good curriculum, therefore, is avoidance of isolated facts. In general, whatever items of a study cannot form a necessary part of some valuable whole must be omitted; and those that are accepted should have a recognizable place in a series of ideas, with cross relations or correlation with other studies.

4. *Attention to Relative Values*

Finally, the value of both curriculum and syllabi is to be judged by the emphasis they succeed in placing upon the more vital and real parts of each branch of knowledge in comparison with that placed upon the less important and more formal portions. Every study contains a multitude of minor facts that any one is expected to know, such, for instance, as dates in history, situation of places in geography, and pronunciation and meaning of individual words in literature. These can stand out so prominently as to seem to constitute the body of the study; or they can be so subordinated to what is fundamental that the latter is made to carry the former and constitute the bulk of the subject. To the extent that this latter object is effected the curriculum and syllabi satisfy one important test of excellence.

CURRICULUM AND SYLLABI ON TWO DIFFERENT PLANES

In discussing standards for judging the value of class-room instruction (page 19), it was shown that, according as instruction met the tests proposed, it belonged to one of two planes. The same holds true with reference to the

curriculum and syllabi. Probably no curriculum in existence ideally meets any one of the four tests we have employed. Yet some of them, in some of their parts, attain one or more of these standards to a remarkable degree and in many of their parts show partial success in the same direction. Others scarcely show signs of any striving toward these standards. It is, therefore, their partial successes, and the endeavor they show to achieve such successes, that make the distinction between acceptable curricula and syllabi and those that should be condemned. Those are considered good that show excellence at many points and promises of improvement; and those are considered poor that ignore these standards.

CHAPTER IX

APPLICATION OF THESE STANDARDS

I. THE KINDERGARTEN

THERE is at present no definite and uniform curriculum or program for the kindergarten. The only way, then, to judge of the character of the program most commonly in use is to apply standards of worth to what one sees in the various kindergartens. Certain features are prominent in all, such as songs, stories, bodily activity, including rhythmical movements, and games, and much use of materials in arranging, designing, and constructing. Just what ideas are to be conveyed by, or developed through, these activities; just what experiences are to be given or deepened by them; just what habits are to be established, seem to rest largely with the individual teacher.

Provision for Motive

In most of the kindergartens visited, the body of thought which gave direction to the activities was close to the children, and of such nature that purposes would naturally arise and be carried over into home life and outside play life. Prominent topics were the child's relation to family and friends, to animals, to industrial workers and tradespeople, and to public servants. Attention was frequently directed to small services the children might render, and ambition was aroused to acquire skill or power in order to win certain positions of trust and responsibility within the group. The things made by the children also frequently gave a considerable degree of continuity and fixity to their purposes.

Provision for Organizing Subject-matter

The kindergarten program always shows attention to organization. Some teachers provide for a distinct correlation running through song, story, nature work, rhythm, games, gift work, and occupations. Others correlate part of the activities, and depend on the sequence of materials to afford the ordered presentation of other activities.

Consideration of Relative Values

The children are more frequently called upon to judge of the desirability of certain acts or modes of doing than of the worth of facts or ideas. The values which are kept prominent, therefore, are of a dynamic kind, and to a large extent the children's incipient powers of judgment and discrimination are called out in connection with matters on their own plane.

The teacher's own sense of values is, of course, very influential. If she seems to attach more importance to such matters as technique, precision, and exact imitation than to initiative, originality, suggestive variation, and ability to work out problems, the former types of excellence are those which the children will also soon place uppermost. There is evidence that in some quarters these more formal values are being overemphasized.

Provision for Individuality

That the curriculum does not limit the teacher's freedom is evident from numerous facts. Pride in the appearance of the room, arrangements for comfort, conveniences, and esthetic effect, the presence of objects calculated to arouse interest and stimulate thought, variety in the subject-matter — all show initiative and zeal on the part of kindergarten teachers. Unusual interest is displayed also in the individual child, and it has been found that the kindergarten

almost always knows the personal history of any child singled out.

Since self-activity is one of the cardinal principles of the kindergarten philosophy, we should expect to find no lack of opportunity for the exercise of initiative on the part of the children. That such opportunity is provided, so far as the curriculum is concerned, is plainly shown in the fact that the work undertaken is, with the exception of stilted gift work here and there, selected with much reference to children's tendencies. Such subject-matter abundantly favors the exercise of initiative and the expression of individuality in other ways.

In brief, the kindergarten curriculum, as a rule, is so plainly determined by reference to the chief aims of the school, as expressed in the four standards proposed, that it greatly aids the kind of class-room instruction that can meet those standards.

2. THE ELEMENTARY SCHOOL

Reading and Literature

It is safe to assume that the general object of this portion of the course in English is to introduce the pupil to the main lines of reading that one who goes no farther than the elementary school may be expected to pursue, and to do this in such a way that the reading may be intelligent, appreciative, and habitual.

The range, therefore, should include both classic literature and, to some extent, current publications, such as newspapers and magazines. The main problems are to make such selections from this field as will appeal strongly to the individual pupil, and then to present them in a way that will subordinate the symbols to the thought.

Provision for Motive

The quality of the subjects listed in the curriculum is excellent; there are only two objections that need be con-

sidered here. One is the narrowness of the offering. A stranger looking through the list is likely to be impressed with the neglect of current literature. If one important object of the English course should be to introduce the pupil to such literature, i. e., to appeal to his interest in the newspaper, magazine, etc., and develop that interest further, so that his tastes there will be good and his method of reading intelligent, then these kinds of reading should be more prominent than they are.

The other objection is the utter impossibility of securing the fullest adaptation of literature to individuals when the 650,000 pupils of Greater New York, living in radically different local environments and homes, are expected to cover substantially the same reading at substantially the same rate. The whole trend of modern education, in its emphasis on individuality, is opposed to that plan. In literature, in particular, where the development of taste is so important, differences in individuals should receive special attention. Boys often need selections different from those for girls; some children need to devote twice as much time to stories as others; a few eighth-grade pupils may be able to read Shakespeare and the Webster and Hayne debate with profit, but many cannot. Any teacher has her preferences, and can teach some selections with far greater effect than others. Why should all such facts as these be in the main ignored, when the very definition of good teaching signifies adjustment to individual conditions?

In provision for the subordination of form to thought, in beginning reading, the syllabus shows breadth. Ideas vary a good deal throughout the country in regard to this problem, and teachers, while practically being urged to let the thought lead, are left free to follow their own will in method. One striking exception is in the syllabus for Grade 1A, where it is directed that ". . . Daily lessons should be given on the sounds of single letters and combinations of letters." Many an excellent teacher would feel this requirement to be a direct barrier to her success in

awakening interest. No doubt it is greatly needed in some classes, but that is not a good reason for requiring it in all.

The statement in Grade 4A that "Pupils should be trained to depend largely on the context for the meanings of words" contributes greatly to motivation of the pupil, being based on a sound principle. But its spirit is almost directly opposed in 2B, where the request is made that "exercises that will insure the prompt recognition of the form and an understanding of the meaning of new words" should *precede* the reading. That signifies *formal* work.

The frequent suggestions favoring the teachers' reading aloud to their pupils are excellent, since good oral reading by the teacher is recognized as one of the most effective means for inculcating a love of literature.

Yet, taking the syllabus as a whole, there is a striking overemphasis of the minor parts of good reading, i. e., of form in distinction from thought. For example, the number of new words to be acquired in a half year is so frequently mentioned, and phonic drills and distinct enunciation are made so urgent, that one rather easily gets the impression that these things, taken together, mean good reading. This conception, no doubt, to a considerable extent accounts for such recitations in reading as that in the fifth grade elsewhere described, where each child was allowed to read only a single sentence and his general ability to read was judged by the accuracy with which each word was enunciated and pronounced. That plan directly checks motive on the part of pupils.

Attention to Relative Values

This last point brings up the question of relative values in general. What is the relative importance of silent reading, for example, in comparison with oral reading? Most of the suggestions on method in the syllabus concern the latter. Yet, judged by the prominence of silent reading outside of school, and after school life is over, a large part

of the reading in school might well be silent reading. The task then would be to show wherein good silent reading consists. The syllabus shows some comprehension of the importance of this matter, since silent reading, without reference to oral reading, is recommended in Grade 2B and referred to several times later. But the test suggested for silent reading, i. e., ability to express the substance of the thought, is very inadequate. Any one must admit that reading merely to know what an author says is passive, and scarcely admissible in real study outside of educational institutions. Therefore, one of the important questions is, How is the school to prepare for the more aggressive kind of silent reading? It is to be regretted that the syllabus does not place greater emphasis on silent reading, and show its desirable characteristics far more fully.

The syllabus makes admirable suggestions about reading for "essential meanings" in Grade 6B, and directly recommends the neglect of minor matters in Grades 7 and 8 for the appreciation of the larger features. But why not similar suggestions for earlier grades? In second reader selections, for example, some portions of a story are usually more important or finer than other portions. Should not children be taught to distinguish these greater values almost from the beginning of school life, and thus establish the habit of being selective? And should not such judgment about values be expected also as an essential part of silent reading? More than that, should not judging of the relative worth of such books, stories, magazines, and newspaper articles as boys and girls read be made a regular part of school work in English from about the fifth grade on? The temptation among children to read trashy literature and to listen to degrading stories is common. It is, therefore, important to cultivate the power to distinguish between what is coarse and what is fine and between good and bad.

Attention to Organization, and Exercise of Initiative

The plan for the work in English is to be commended for not attempting to group the selections read according to some central idea, for the way is not yet clear to do that with much effect. The organization of the particular selection is, therefore, the only kind of organization to be considered here; and since that is already provided for by the author, those who plan the course need not concern themselves further about it.

As to provision for the exercise of individual initiative by teacher and pupil, the situation is by no means so simple or so satisfactory.

By the time the seventh year of school is reached, the pupil himself should be able to determine, to a large extent, what should be done by him with at least a good portion of the selections assigned to him for study. How, otherwise, is he learning to read independently and intelligently outside of school?

But if this object is to be accomplished, the beginnings of the exercise of such independence must have been made very early in the grades. That is, the children must early have learned to put some of the necessary questions, as well as to answer them; they must have learned to select the more valuable parts and make fitting remarks about them. That means that the teacher, from the first year of school, must have labored to cultivate the pupils' initiative, keeping herself in the background. The silence of the syllabus in regard to this whole matter — consideration of which might well constitute a full half of all thought on method — leaves one in doubt whether the *growth* of the pupil toward self-reliance is the aim here so much as mere knowledge. Such a doubt no syllabus should allow.

There is some reference in the syllabus to "informal talks on books read at home" (in 6A); but the extent to which pupils should follow their individual preferences in their reading, and use the recitation period for reporting

upon it to the class, is a matter of far more importance than is indicated by the syllabus.

In the higher grades there are definite suggestions as to how many times we need read a masterpiece for appreciation, — apparently two times in Grade 6B and three times in Grades 7 and 8. The danger of thus giving specific directions without reference to the principles involved and to the kind of selection is well illustrated in this case, for such directions, presented so arbitrarily, are bound to produce a mechanical effect. Many good selections are not the kind that one needs to read three times, as for example Longfellow's "Hiawatha." Or, if one reads them three times, it would not be in the ways described. A hasty, more or less careless, first reading of a long selection is often one of the worst introductions to a classic; yet the instructions in the syllabus have caused that practise to be quite common in New York City. The difficulty with the syllabus at this point is that it suggests uniformity in detailed practise, while the only uniformity admissible is that in aims and principles. If the syllabus had stated the few leading aims and principles involved in the teaching of literature, and then had shown, by a few illustrations, how they variously affect practise, according to conditions, it would have given most valuable help. As it is, it tends rather to limit the freedom of teachers in studying individual conditions and in selecting both the reading matter and the method appropriate to them.

Conclusion

In general it may be said that the selection of subject-matter for reading and literature is good so far as it goes; and many of the suggestions on method are valuable. The main defect is that the point of view in making selections is narrow, omitting much that should have been included; and in offering suggestions on method the syllabus is arbitrary.

COMPOSITION AND GRAMMAR

Provision for Motive

The first condition of success in composition is the real desire to say something. A certain private school, desiring the anniversary of Lincoln's birthday, as well as Washington's, for a holiday, determined to send in a petition to that effect to the principal. This need furnished the stimulus for competitive letters written by all the pupils of several rooms, and the best of the letters were forwarded to the principal.

One of the public school principals in this city has a collection of compositions, recently received from boys, telling of their experience in collecting stamps. There was a real purpose in writing in both these cases, so that the prime condition of good composition was met.

Some teachers regard that condition as normal. They conceive children to be as well supplied with purposes that require oral and written speech for their accomplishment as with facts; and they regard the work of making children conscious of such purposes, and of formulating these as subjects for compositions, as one of the leading elements of all good composition teaching.

Little sympathy with this conception is shown in the curriculum and syllabus for composition in the New York City elementary schools. The nearest approach to it is found in the early grades, where the desire is expressed that "the subjects of the language lessons be interesting and instructive." But beyond the improvement he will get in language there is no reference either then or later to the need of a real purpose, on the part of the pupil, in the proposed conversations, story-telling, and writing expected from him. Even classic literature, of which much use is to be made, is considered valuable not mainly as a source of live topics that need discussion but rather as a source of models of style, for imitation. Composition, in the

minds of the authors of the syllabus, aims at correctness of form, at clearness, accuracy, and sequence, in the presentation of thought. Classic models supply the best examples of these, and imitation secures practise; therefore, they must be the chief means of developing power in these respects. The need of motive for the expression of thought, in composition, is ignored.

This attitude helps to explain the course and syllabus in grammar. That subject really begins in the fourth grade, under the heading of composition, with a classification of four types of declarative sentences; in the beginning of the sixth grade it takes an independent place in the program, which it holds throughout the sixth, seventh, and eighth years. The absence of motive and the degree of its isolation from other subjects are indicated by two facts: First, in the prominence given to mere classifications, in the sixth year. For example, the following is a full statement of the work for Grade 6B:

"Grammar. The instruction should be limited to the subdivision, inflection, and syntax of nouns, pronouns, adjectives, adverbs, prepositions, and conjunctions. Only the most important subdivisions should be studied: of nouns, two classes, common and proper; of pronouns, four classes, personal, interrogative, relative, and adjective; of adjectives, two classes, descriptive and demonstrative; of adverbs, those expressing time, place, degree, and manner, and interrogative adverbs; and of conjunctions, coördinating and subordinating, copulative, and disjunctive. Rules of syntax should be studied in connection with words occurring in sentences.

"Phrases should be classified according to function, as noun, adjective, and adverbial — not according to form.

"Analysis and synthesis should be limited to simple sentences."

The other fact showing how isolated most of this work is expected to be is the statement in Grade 8A that "In this grade emphasis should be placed upon the connection

between composition and grammar." The idea seems to be that, after having classified the facts of our language in the preceding years, the pupils of the eighth year shall discover the motive for such dull work, i. e., they shall see how these classifications are related to composition.

The value of this course in grammar must be seriously questioned for three reasons:

- a. It is no source of mental life to the average pupil; and, being made prominent in the crucial sixth year of school, tends to drive children out of school.
- b. Experience within the elementary schools has shown that the rules of grammar, learned apart from composition, literature, and conversation, have very little or no effect on the correct use of English.
- c. The time required for this kind of instruction must be mainly taken from composition and literature, and thus seriously weakens the appeal they make to children.

According to the time allotment of studies there are 375 minutes per week that can be given to English in the sixth year of school, aside from seventy-five minutes for penmanship. Out of this time the claim of spelling for approximately fifteen minutes per day, or seventy-five minutes per week, cannot be denied. Grammar as a separate subject cannot possibly get on with less than three periods per week of thirty minutes each, which makes ninety minutes. That leaves 210 minutes per week for literature and composition. If we assume that literature should receive at least thirty minutes per day, or 150 per week, that leaves sixty minutes, or two thirty-minute periods, per week, for composition. There are 205 minutes per week set aside for study and unassigned time. Out of this amount at least thirty minutes per day, or 150 minutes per week, are expected to be devoted to study, not recitation, leaving eleven minutes per day that can be used where most needed. Several other subjects as well as English are, of course, clamor-

ing for more time; hence it cannot be expected that all, or even most, of this will go to English, as a rule. We see, therefore, that this grammar, while tending to discourage pupils and while affecting their English only slightly at best, is also crowding out other work that is absolutely necessary.

Attention to Relative Values

The emphasis, after the third grade, on model letters and model specimens of narration, description, and exposition helps to explain two striking omissions in the syllabus. The qualities frequently named, and set up as aims, are *clearness*, *accuracy*, and *sequence*. These certainly are desirable. But suppose that Lowell writes a model letter to Emerson thanking him for a book; and children, in imitation of this model, write to some friend likewise expressing thanks for such a present. The model letter cannot be fully followed. It must be modified, according to the persons concerned and the conditions. In other words, the *fitness* of one's remarks, as well as their clearness, accuracy, and sequence, is a great factor in composition.

Again, if a pupil applies for a position, the success of his letter is likely to depend very much upon the reasons he can give for thinking that he is the most desirable candidate. One of the main tests of almost any kind of composition is found in the extent to which the data offered produce a vivid picture, a proof, a conviction. In other words, the *force* with which one presents ideas is another vital factor in composition. Clearness, accuracy, and sequence do not include these two; nor are they superior to them in importance. Why, then, is there no reference to either of them in the syllabus? The reason seems to be that want of appreciation of the need of any specific purpose in composition has caused these elements to be entirely overlooked. In addition, the absence of any particular aim in writing would deprive a writer of all means for judging the fitness and force of his statements anyway.

Consequently, unless the authors of the syllabus had urged the importance of having a particular object in writing, any discussion of fitness and force as factors in success would have been useless.

The criticism here pertains, not to what the syllabus includes, but to what it omits.

Aside from this omission it is plain that much attention has been directed to the relative importance of various parts of composition work. In particular, the emphasis on much oral composition for its own sake and as preparation for written work is worthy of commendation.

Reference to relative values in the case of grammar is in place only when it is approached and treated as an art. For values are present only to the extent that relations to our interests are established. But grammar is not expected to be approached and treated here as an art. For example, as above quoted, the connection between composition and grammar is to receive emphasis in the eighth grade only. Grammar, then, is here presented as a science or, the outline being very brief, as a mere skeleton of a science. Who, in that case, can point out the most important part of a page or a chapter? Appreciation of values is to come later. Thus, as presented, this subject deliberately trains children to omit consideration of varying values at a time when the habit of weighing value is one of the most important habits for them to form.

Attention to Organization

In its frequent reference to paragraphing and outlining, the syllabus gives desirable prominence to organization of ideas; but examination of the larger features of the plan reveals a peculiar defect in this respect.

One might suppose that classical selections treated in the periods set aside for literature would be mainly drawn upon, both for model examples for imitation and for subjects of discussion in composition. Proper correlation between composition and literature presupposes that. But it is not so,

in the main. While a general plan is proposed, as previously explained, for the appreciative reading of a masterpiece of literature as a part of literature, in composition another general plan is also proposed, even in the same year (the seventh) for a study of specimens of narration, description, exposition, and familiar letters selected from literature with the object of imitating them. There are supposed to be three readings in each case; and, while there is perhaps more attention to the author's plan and style in the latter case than in the former, one wonders why there should be so much duplication. This nearly complete duplication of work indicates that the authors of the syllabus intentionally avoid correlation among studies; and there are many other facts that suggest the same intention.

Provision for Exercise of Initiative of Teachers and Pupils


In the field of composition the exercise of initiative involves expressing in one's own way what one thinks and feels. Many believe that one great object of composition is to help a person find out what he really thinks and feels, and to help him to express it in the way peculiar to him. With this object in mind, literary models should come late in the unfolding of thought on a particular topic; otherwise they are in danger of supplanting the pupil's own thoughts and style and thus submerging him. The function of models is not to supplant the self, but to offer aid *after* the self has found something of its own to stand upon. They are, then, a very valuable source of suggestion, revealing desirable changes here and there in what is, at bottom, one's own. The conviction that good thought and good style are mainly to be attained by imitating another is one of the worst calamities in a student's intellectual development. Imitation is a very valuable aid in securing good expression of thought, but it is a subordinate, not the chief, means; it is subordinate to self-expression.

In the curriculum and syllabus of New York City, how-

ever, imitation is the watchword; correct expression, rather than self-expression, is the aim; and positive suggestions for the preservation and development of originality are wanting.

With this conception of the worth of the pupil's individuality, it is not at all strange that the teacher's individuality seems to have been overlooked in important respects. For example, in Grade 5A the direction is given that "Only one kind of error should be corrected at each reading of a composition." This is nothing else than wooden. In Grade 7A the model specimens are to be studied in a certain way, as above referred to. Of course, these directions may be taken only as suggestions, although great numbers of teachers deny that they are commonly so interpreted by the principals and superintendents. But why should even suggestions be made whose influence is bound to be in the direction of iron-bound uniformity, when adaptation to particular conditions, which means diversity, is the standard of excellence? Should not many a classic model be read primarily to observe how vivid are the pictures the author produces? Should not many another be read mainly to study the peculiar force of particular words or phrases? There is no fixed way of treating these subjects; and to assume that there is, not only misleads immature teachers, but tends to tie the hands or check the initiative of those who are mature.

Further, the insistence on substantially the same curriculum in composition for all schools means infringement on the exercise of individuality by teachers and principals to a marked degree. For example, the list of prevailing errors in English restricts the activity of the teachers to those errors, whereas the actual errors vary to a limitless extent in schools representing differences in nationalities as well as in home advantages. The amount of time to be devoted to oral and written expression of thought should also vary extensively. The teachers and principal of a given school are the only persons who possess the knowledge necessary



to decide these matters, and their positive proposals are invaluable (*required*) if the curriculum is to make its fair contribution toward efficiency in instruction. But the manner of presenting the present curriculum and syllabus at best only *allows* freedom in these matters; it does not put a premium upon freedom.

These, then, are prominent facts touching the curriculum and syllabus for composition and grammar.

They ignore the need of any particular purpose to be accomplished when one writes; and, in advocating grammar as a regular study, they emphasize their disregard for motive on the part of children.

Motive being thus disregarded, the basis for consideration of relative values is omitted completely, and very naturally some of the most important elements in composition — which are suggested only when motive is kept in mind — are ignored.

The importance of correlation between literature and composition is not recognized. Imitation is made so prominent that the individuality of children is endangered; while the directions given to teachers on method tend seriously to limit their freedom, and insistence upon substantially one curriculum for all schools prevents the adaptation of the instruction to individual conditions.

SPELLING

Motivation

The spelling of from 3,000 to 4,000 words is expected to be learned in the course of the eight years, and they are each year "selected from the pupils' vocabulary and from the lessons of the grade." This source provides far better for motive than do the lists usually found in text-books. But even this limitation is too broad when we realize that the main need of spelling is found in the written expression of thought. This being the case, only those words should be studied that belong to one's "active vocabulary," and

that are also *likely* to be used in written expression. In order to meet this condition, teachers should not only make out *grade* lists, drawn from the sources mentioned, but also class lists as well; and teachers and pupils together should arrange for "personal lists," including words new or particularly difficult for particular pupils.

The recommended order of procedure for the mastery of words is: (1) Meaning through context; (2) observation of written form with naming of letters in order; (3) copying; (4) writing from dictation, perhaps preceded by oral spelling; (5) oral spelling. The insistence upon the meaning of each word at the start tends greatly to make the study concrete. The word study, too, extending through much of the course, helps to give the subject a real content of interest.

Organization

The importance of association is not overlooked, as is shown above, in the combined use of the ear, eye, voice, and hand in the mastery of word forms. A small number of rules is taught; the grouping of letters into syllables, the observation of common phonic elements, and the grouping of words according to common stems, prefixes, suffixes, and as synonyms — all show attention to organization. But the most important grouping of all, i. e., in actual sentences full of interest, is partly overlooked. While words are *approached* in their setting, there is little reference to reviewing and testing them in actual sentences. Since spelling is mainly used in written work, the form of the word needs to be associated with the muscular movements of the hand, and it should finally be reproduced while the attention is largely directed to the content of what is written. For these reasons the real test of spelling is found in writing interesting sentences from dictation, and in spontaneous written expression. The end in spelling practise, then, is not oral spelling, nor written spelling in lists, but written sentences, or paragraphs.

Relative Values

The syllabus recommends the *teaching* of words rather than the mere testing of ability to spell them. That is a very desirable distinction. It also emphasizes the importance of attention to misspelled words. But unfortunately its suggestions about how to present new words are altogether too limited; beyond question they should be presented with the same care that topics in history or arithmetic might be presented, particularly in order to awaken thought and to avoid wrong first impressions. Suggestions also about how to correct misspelled words are almost wanting, although that should constitute a prominent part of the study.

Initiative

One important part of any plan for teaching spelling consists in provision for self-help on the part of the pupil. Word analysis is one part of any such provision, and that is made prominent here. The learning of some rules is a second means, and that is included. The use of the dictionary is a third means. But it is surprising that the use of the dictionary is first mentioned in Grade 6A, while very many schools elsewhere take up that task in Grade 4A. Why should it come so late in New York City? Also, the value of the proper enunciation of words as an aid to their spelling seems slighted throughout the course.

On the whole, the curriculum in spelling is reasonable in amount, and both its content and the suggestions in the syllabus about method free it from excessive formality — which is a decided merit.

MUSIC*Provision for Motive*

The course of study in music in the elementary schools calls for rote singing from Grade 1 through Grade 4A.

This plan gives an opportunity to supply the children with musical experiences that they would be unable to have if they were dependent on what they could read.

But no guidance is given by example, or by titles, of the kinds of songs or of the particular songs to be used. Considering the fact that music, like language, is a product of our social life, and that the child's early musical experience establishes his comprehension of and taste for music in the same way as his early study of literature establishes a comprehension of and taste for literature, it would seem to be of the highest importance that the musical selections which the child learns by rote should be not only of a character to please him at the time, but also of classic quality. In fact, it is the proper awakening of the pupil's feeling for *good* music in these early grades that constitutes the most fundamental part of his musical education. Music, like language, interprets the social and physical world about us. In the choice of songs in relation to seasons, festivals, social events, and occupations, there is supplied a strong motive for the use of the songs. But so long as no suggestive lists of songs are made, and principles of selection are wanting, there is serious lack of guidance.

This is all the more evident when one reflects that the difference in the ages of the pupils, even between the first and fourth grades, requires much variety in the choice of materials; and while no list should be any more universally accepted than is a list suggesting what would be read for literary purposes in the readers that are used, yet as one of the main functions of those who plan language courses and readers is the selection of the materials, so should the course in music offer guidance in the selections by which the pupils are to be trained to love good music.

It might be said that this task is accomplished in the music readers. But as three or four years of more or less rote work in music precede any extensive reading ability in that subject, books could be of little use during these early years. Music also, even more than language, depends for

its effectiveness upon its character and the style in which it is rendered. Hence the choice of materials should have been indicated with even more than the care employed in the choice of literary selections. There are classic songs for children like some of the Mother Goose melodies, as well as those of more rational types like Stevenson's verses set to music. Considering the flood of weak music that is written for children, as well as the number of bad adaptations, guidance in the choice of material is imperative.

Reference to the importance of the style in which the rote song work is done brings up a further reason for care in selection. Owing to the important fact that the child's quality of voice, his inflection and articulation, tend to act automatically in response to what he clearly feels, the rote song that really expresses his interest becomes one of the most important means for developing good tone and expressive rendering. To be effective, as in the case of language, the thought expressed must appeal to him. Yet neither the course of study nor the syllabus that accompanies it has anything to say on this score more than that the tone must be sweet and the songs must be well rendered.

The course of study follows the same plan with reference to the reading material for the later years as it does with reference to the rote song work, i. e., it makes no effort to define or suggest good materials. That the readers contain many valuable selections there is no doubt; but there is no doubt either that they contain many that are poor. Some guidance is necessary here, also.

In omitting extensive and helpful suggestions, therefore, as to desirable materials, the curriculum and syllabus fail, most seriously, to provide properly for motive.

Consideration of Relative Values

In considering relative values, we are chiefly interested here, as in early reading of literature, in the extent to which

the formal side of the work is subordinated to the thought and feeling.

Turning to the use of the rote song for purposes of teaching the tonal relationships necessary for sight reading, we find that, while this idea is suggested in the syllabus, no provisions for carrying it out are made; hence this live approach to the technical work is lost sight of in the class room in a merely formal presentation. In the first grade, it is true, the suggestion is made that the scale should be learned as a song; but this rote-song basis is practically omitted, and the entire attention is devoted to the practise of intervals, dictated by number. As such independent intervals do not form musical movement any more than single letters or even words form literary thought, the effect of such interval practise resembles more the earlier methods utilized in reading when the attention of the pupils was directed first to the letters, then to the words, and finally to the combination of words in a phrase. It is true that the organization of the work in music along the line which was followed by teachers of reading years ago, is carried out with extreme care and thought. But since the principle upon which such music teaching is based has not only long since been discarded, and also since the success of the new method in music has been well established, it is unfortunate that the syllabus does not indicate by its scheme of study the appreciation of this new approach to the very difficult subject of sight reading of music.

Again, granting the great importance of drill in sight reading, both in reference to the practical result of being able to read music and to the musical intelligence that can be developed by such work — thus enlarging the sphere of possible musical appreciation — it must be borne in mind that a very large proportion of the pupils will make very little use of their music-reading ability. What is of prime importance throughout the elementary school, therefore, is that good standards of taste be established both for the music and its effective rendering. Consequently the ade-

quate rendering of good selections, not only by the class but individually, should be the end toward which pupils and teachers should strive, and in this accomplishment standards of judgment both with reference to the composition and its rendering should be developed that would be of the highest practical value in improving and strengthening the taste of the future citizen for good music. Unfortunately, in the course of study the emphasis is placed upon book work increasingly through the grades, with reference to the ability to *read at sight*. In fact, one might say that this is practically the only standard held up.

The music as planned, therefore, is peculiarly technical. It allows the formal side to be uppermost in the earlier years — as in the old style of reading — and it makes technical skill the final aim. The ideals that the pupil gets are in the direction of skill in sight-reading, and this unfortunately with little reference to beauty of tone or expression.

Provision for Individuality

Work in sight singing from the book is begun in Grade 3B. It is natural that in this and the following two years there should be a pretty strong emphasis on the technical side of music reading. Such work requires to a peculiar degree the ability to translate arbitrary symbols presented to the eye into musical ideas. The ability to look ahead and coördinate what is coming, so as to know how to render the passage, is similar to that of intelligent word reading, except that in music it is much more complicated. To make this rapid coördination possible, intensive drill in the comprehension of what the staff calls for in its sound equivalent and tonal relationships is necessary.

While accuracy and speed are essentials in such drill, the most important consideration is that the individual pupil should do the work. It is not merely class knowledge and skill that are wanted, but knowledge and skill of the individual. As a help to the establishment of this individual responsibility, it was highly important that the syl-

labi should show clearly the order in which the various tasks should be undertaken — that, indeed, they should establish a *standard sequence* — so that ordinarily no pupil should be allowed to proceed to a given topic before reasonably mastering those preceding it. But the course of study and its accompanying syllabi, while giving minute directions as to the particular keys, intervals, and manner of doing, set nowhere such a standard for any grade. Accordingly, there is a tendency to hold pupils for no particular results. Those children that need the greatest care and attention are carried along by the more musical ones, and they pass on from grade to grade, without even being conscious of what they don't know.

The peculiar importance of this point is seen in the fact that in music, more than in any other study, the work is done in concert. The rhythmic nature of music encourages that method. A course of study, while not demanding identical work from all pupils, should demand that a few of the fundamental facts in their logical sequence should be known by every child who is intelligent enough to do the work of the grade. It should not be possible, as was recently the case, for nearly half of a class entering a girls' high school to be unable to give the pitch names of the staff. It is one thing to respond to dictation work or to sing a passage with the class as a whole, and a very different matter to do the same things individually.

It was the duty of the syllabus to check the tendency toward concert work alone, not only by suggesting a certain sequence that each pupil should necessarily follow, but also by directly emphasizing the importance of individual singing. The omission of these precautions shows a peculiar disregard of individuality.

Organization

This demand for individual accomplishment on the part of the pupils could be greatly stimulated if, in the organization of the work, definite requirements could be made

of all those who plan to teach. A very large number of the girls who continue their study beyond the eighth grade expect eventually to teach. To know the requirements in music would influence their work even down to the seventh and eighth grades, and it would materially help the work in the high and normal schools. Unfortunately, the music in many of the high schools, owing to the difficulty of arranging programs, obliges students of different years to sing in the same section or class. This makes all orderly work impossible, and coupled with the lack of any definite requirements either as to application or scholarship, such as are expected in other studies, tends to reduce the singing to a mere entertainment exercise. This attitude in the high schools is reflected into the grades.

The dignity of music demands that a more definite organization of the whole field be established, and such organization should be most clearly revealed in the curriculum and syllabi.

To sum up, it is suggested, First, that both the motive for singing and the style of rendering songs would be greatly helped if classic selections were listed appropriate both for the grades and the schools as a whole.

Second: Proper attention to relative values requires that technical knowledge and skill be more subordinated to school singing and musical taste.

Third: The individuality of pupils should be more fully provided for by much more attention to individual attainment in contrast with concert work or class attainment.

Fourth: The subject-matter should be better organized, so that there may be far more definite requirements for each grade, both as to application and scholarship.

NATURE STUDY AND ELEMENTARY SCIENCE

Provision for Motive

The syllabi for nature study of Grades 1 to 5, and for the elementary science of Grades 7 and 8, are dominated

by the scientific point of view, which properly prevails in the later study of science in college. The apparent motive is to teach the facts of systematic science, and there is no provision for selection and organization of materials in line with the widely accepted view that the motive of nature study should be relation of natural things to human life.

The first illustration in support of this criticism is taken from the syllabus for nature study (page 15):

"It should be clearly understood that no class is expected to study all of the topics in nature study that are suggested in the syllabus. *The pupils should be taught to recognize and to name all of the subjects under each caption*, but only a few topics should be selected for *systematic observation and study*. When other material suitable for the work is more accessible, it may be substituted for that mentioned in the syllabus."

Note the emphasis upon "learning names" and "systematic observation." But there is no suggestion of relating the study to human life, or even of the dynamic point of view, which requires interpretation of structure in terms of function. This clearly indicates the viewpoint of science rather than of nature study.

The motive of organized science is as prominent in the syllabus for elementary science as it is in college courses. In fact, the syllabus for elementary science is in outline a close imitation of a college laboratory course in physics. In support of this statement, a few quotations will suffice:

"Generalize results obtained in [Experiments] 16, 18, and 19 in form of an equation. Give problems applying this equation. By diagram show that distances traversed by force and load are proportional to their lever arms, and therefore force multiplied by distance-force-moves equals load multiplied by distance-load-moves." (Page 33.)

("The teacher should here develop very simply the ideas of molecular structure of matter and of heat as a form of molecular motion.") (Page 42.)

("Discuss the three modes of propagation of heat illustrated by Experiments 108 to 119.") (Page 45.)

Such a course is so entirely out of line with elementary education that a complete reorganization is desirable. And the course for Grades 7 and 8 should not be reorganized as elementary physics, but as advanced nature study and introduction to *general science*.

That is, the subject-matter should be selected with primary reference to the pupils' interest rather than from the viewpoint of pure science.

Attention to Relative Values

The scientific and encyclopedic points of view being so dominant, relative values have necessarily received little consideration.

The very important points included under "Natural Phenomena" are omitted from the A divisions of Grades 1 to 4.

Probably no other topics are so usable and useful in all schools as are these inorganic nature-study lessons. It would seem that the same broad subjects in this field should be included in the work for the two divisions of each grade, and that optional topics might be suggested for study in the more advanced division.

The present "elementary science," limited to physics, excludes many elementary ideas of chemistry that are more important for grammar schools than are many of the topics of physics outlined here. In order to find time for the chemical experiments needed, the present outline of physics, subdivided into gravity, mechanical powers, mechanics of liquids and gases, magnetism of electricity, sound, and heat, might well give way to an outline of chemico-physical nature study based on daily life and interests.

Further suggestions in regard to provision for relative values follow in the discussion of organization.

Organization

There is need of some attempt at organization of the course of nature study, for most of the topics now stand as isolated as did those of the former object lessons. In the previous discussion of motivation and relative values, also, it was suggested that the entire course of elementary science should be reorganized from the nature-study point of view in place of the present imitation of systematic science.

Trees, birds, insects, and many other assigned topics need not be studied entirely as isolated specimens; but the studies should be grouped together so as to bring out the human interest in some larger problems, such as conservation of forests and bird life, influence of insects on agriculture, the usefulness of animals and plants to man, the development of individual animals and plants. Such organization is largely applicable to grades above the third. A limited number of trees and birds may profitably be considered in each primary year, but in grades above the first three there might well be intensive series of lessons which bring together the main facts about questions of general interest.

A prominent part of the nature study ("elementary science") of the seventh and eighth grades should center around hygiene, which offers splendid opportunities for introducing the most useful ideas of elementary chemistry and physics. Moreover, the inclusion of hygiene (with the necessary physiology) in the "elementary science" will place the important study of the human body on a laboratory or observational basis, which it cannot now have in its present relation to physical training. Probably the weakest point in the entire curriculum for nature study and elementary science in the New York schools is the complete separation of hygiene from the observational studies of natural things selected for illustration by the best teachers of the subject. For the sake of better teaching both of

hygiene and of the introduction to science ("elementary science") the two subjects should be united in an organized course.

The present syllabus of nature study offers little opportunity and less encouragement for correlation with other subjects.

Much of the inorganic nature study, including the weather studies of Grades 1 to 5, should be arranged as preliminary to, or correlated with, geography. Still other inorganic topics, such as air, water, and heat, need to be related to hygiene.

In the higher grades, also, the relations of this field to the physical aspects of geography, to household arts and industrial art, should be clearly stated in the syllabus.

On the other hand, the recommendation that "stories, fables, songs, and other literature pertaining to objects studied should be read" (Syllabus, page 14) leads too easily, in practise, to the substitution of reading for that observation which is fundamental in nature study. The nature-study time should hardly be used for reading "stories, fables, and songs." These are important for correlated English lessons, but have no proper place in nature study. The only legitimate reading for the nature-study period is that which helps with the observations or gives supplementary facts that are scientific and in harmony with the most approved aims of nature study. All other reading, such as stories and fables, should be judged and selected from the viewpoint of English, and read in the periods assigned for that subject.

In brief, every study must have its own purposes, and all subject-matter finding a place in a study should be chosen primarily with reference to those purposes.

The omission of nature study from the sixth year makes a break in a continuity which ought to extend from Grade 1 to Grade 8, inclusive. This is not serious with the present syllabus, for, as indicated above, there are at present no obvious attempts at continuity and little correlation; but in

a revised syllabus, which attempts continuity from Grade 1 to Grade 8, there should be regular nature study planned for Grade 6.

Provision for Exercise of Initiative

So far as the teacher is concerned, self-expression is very much circumscribed by (1) the advised formula method, and (2) by the prescribed materials for study.

(1) The method for teaching nature study prescribed at the bottom of page 15 in the syllabus (quoted in the foregoing under "Motivation") is an exceedingly limited formula, tending not only to insure that all topics will be treated alike, but also that they will be treated very superficially. The formula for teaching elementary science has the same tendencies (page 29).

(2) The selection of materials for nature study in Grades 1 to 5 appears to be based almost entirely upon the kind of nature study adapted to suburban or rural regions, and there has been almost no planning for the city schools. It is generally admitted that even in the most congested city districts there should be some nature study based on materials imported from rural regions, and hence not drawn from the environment of the school children; but the present syllabus is too exclusively based on such foreign materials.

However, the widely different environmental conditions in Greater New York make a uniform syllabus of nature study for all schools especially undesirable and unsatisfactory.

Nature study in its best interpretation deals with nature in relation to daily life, and this obviously demands wide differentiation between nature study for city and country schools, and even for schools in different parts of the city itself.

Moreover, the ability of teachers to give instruction in nature study varies more, even, than their ability to teach music. A single course of study in nature for a great city, therefore, based on the assumption that all schools can have

much the same materials for study, and that all teachers can teach it, ignores the plainest facts; and, if enforced, it must lead to results that are at least questionable. If a teacher were to show as little regard for individual variations as this curriculum shows, she would be condemned outright as lacking the first elements of a real teacher.

The part of any curriculum in nature study that can be properly required of all the schools is very small indeed, consisting of such topics as opening of buds, weather studies, common vegetables and fruits, germination of seeds, and a few very common wild flowers. Beyond that, there might be only suggested a series of well-organized topics, from among which teachers might select according to availability of materials, environment of the school, possible correlations, ability of the teacher, and interest of the pupils.

And even then not very much is likely to be accomplished in many of the schools until ample provision is made for supplying the schools with desired materials, just as it has long been the custom in connection with the high schools.

As the syllabus now stands, no teacher deserves censure for omitting all nature-study observations, for there is little more justice in expecting teachers to get the necessary materials than there would be in expecting them to provide pupils with writing materials and books. The many teachers who, working with the present syllabus, are providing the materials and conducting creditable lessons, deserve the highest commendation for giving to the schools what, in all justice, should not be expected of them.

Considering the fact that nature study is a new subject to most teachers, and that few normal schools give adequate preparation for teaching it, the syllabus should by all means be supplemented with some approved lesson-plans on typical topics, with notes on materials, and with specific references to books to be found in school libraries.

In brief, we find this course in nature study and elementary science ignoring interest on the part of young

people, disregarding relative values among facts, merely enumerating topics rather than offering an organized outline, — particularly for the first five grades, — and paying the minimum attention to individual conditions.

ARITHMETIC

Organization of Subject-matter

The organization of the course of study is relentlessly logical. Thus the addition tables of 1's and 2's are presented in the 1A grade; the tables of 3's and 4's in the 1B grade; and the remaining tables of the 5's, 6's, 7's, 8's, and 9's are completed in the 2A grade. The multiplication tables through 5×9 are taught in the 2B grade, and the remaining tables through 9×9 are taught in the 3A grade.

In the 3B grade there is rapid drill on the tables already learned, and in the 4A grade the learning of tables is continued through 12×12 . The same careful grading is planned in the study of "bills" in each grade from 4B to 6B. The syllabus contains the following statement for the 4B and 5A grades: "Bills made out and receipted; the model should have date, name, address, and business of the maker; name and address of the debtor." In the 5B grade the terms "debtor" and "creditor" are to be properly used and defined, and in the next two grades bills are to be paid by checks. The same tendency toward logical arrangement is shown in the teaching of dry measure. Pints are taught in the 1B grade, quarts and pecks in the 2A grade, bushels in the 3A grade, and contents of bins in bushels in the 6A grade. The cases here given are representative.

Such logical organization has two evident advantages. In the first place, the grading is so even that the work assigned to each of the several grades is about equally difficult for the children concerned. In the second place, teachers are not in doubt regarding what the pupils have

had in the previous grades, or what is expected in their own. It is very convenient for superintendents, and principals also, when they desire to obtain a quick estimate of the work in merely inculcating knowledge accomplished by the teacher.

But this arrangement of subject-matter is just the one that educators have been trying to escape during the last twenty years. Its defect is that, while intended for children, it is planned entirely from the viewpoint of the adult. That is, it is coldly logical, where it should be psychological, or adapted to child nature. Consider the addition tables, for instance. According to the course, the pupil is expected to spend a few weeks on adding by 1's and 2's before proceeding to 3's. But if he has any need at all for number his requirements are not limited to adding by 1 or 2. The sum of 4 and 3 is likely to be required as often as the sum of 8 and 1, and the former combination is no more difficult to learn than the latter.

Likewise, the facts connected with dry measure are not best gained by learning first the pint, then the quart and peck, and last of all the bushel, with a pause of a few months after each effort.

That young children use number extensively outside of school cannot be doubted. But their approach to the subject is through scoring in such games as dominoes, bean bag, and shuffleboard; through measuring, in connection with the making of articles out of paper, cardboard, string, and wood; through buying food in small quantities, etc.

This being true, if a division is to be made in the learning of the forty-five combinations, the basis of the division should be that of the magnitude of the sum or product, as suggested by observing how children of a given age actually use number.

Any one who has observed little children, with toothpicks in hand for illustrative material, laboriously going up and down the tables, saying 5 less 1 equals 4; 5 less 2 equals 3; 5 less 3 equals 2; 5 less 4 equals 1, must have felt

sorry for the little tots. That is too systematic for any person but a philosopher.

It is the same old question of "rigid sequence" that is slowly being rooted out of the industrial arts and the kindergarten. It used to dominate in the readers, but no longer. Such sequence is resorted to only when one has forgotten one's childhood and lacks the higher viewpoints of modern education.

Attention to Relative Values

The planning of a course of study is a severe test of one's conception of the relative worth of different facts. As long as the disciplinary conception of education prevailed, the selection of the various topics in arithmetic depended very largely on their fitness as means for training the mind in such virtues as love for the truth, accuracy, perseverance, and the like. The science of number was then more emphasized than the art of computation, and almost any kind of subject-matter was admitted.

The results that were obtained by this method were not satisfactory, and there was an insistent demand for a mathematical curriculum that was more closely connected with the affairs of life. In many quarters the schools attempted to meet the difficulty by organizing a course of study in arithmetic which was utilitarian in the narrow sense that it attempted to make the pupil efficient in the counting room or store exclusively. Emphasis was placed on the art of computation, on business forms, and short methods. That also failed to satisfy.

At present there is a demand that is more important than either of these two. Society recognizes that not every pupil in the school is to become a clerk or an artisan, but that every one is and will continue to be a member of a social organization in which savings banks, insurance for fire, life, and accident, and corporations of various sorts, are important factors. The success and happiness of an individual will depend much on an understanding and ap-

preciation of the various institutions with which he must deal. This conception of the needs of the individual has brought about a demand for a practical treatment of arithmetic in the elementary school. This standard for the selection of subjects emphasizes the applicability of what is to be taught to the actual affairs of life, a provision that will add life to the subject and thus give a special guarantee of the mastery of its fundamentals.¹

Partial payments, highest common divisor, cube root, compound proportion, and like subjects, which are now taught in the city, have no place in such a course. Other subjects, such as mensuration, deserve treatment only to the extent to which their limited utility entitles them. Most important is the inclusion of such subjects as come in close touch with the affairs of life. The work of a certain sixth-grade teacher in a private school in New York may be mentioned as indicative of this broader conception of arithmetic. During the visit of the fleet of war vessels the pupils of this grade wrote a letter of inquiry to the officer of one vessel concerning the amount of food required by his crew. This information was furnished and became the basis of some very instructive lessons on the cost of food and of some effective drill in computation. An article in a magazine setting forth the relative expense of delivering goods by automobile and by wagons gave the opportunity to teach intelligently the meaning of percentage.

The New York course of study gives no indication of appreciation of values of this sort. The various topics to be studied in each grade are printed in order, without suggestion along this line. The syllabus does indicate values in certain cases; i. e., special emphasis is laid upon certain work in each grade; but that is an emphasis that requires only special drill.

There is, however, a paragraph in the Introductory Note

¹ Addition, subtraction, multiplication, and division of whole numbers, simple fractions, both common and decimal, percentage and its simplest applications.

of the syllabus that is of interest in this connection. It runs as follows:

"Numerical relations may be found wherever the mind seeks them; hence problems may be derived and should be derived from the life of the home, the school, the farm, the laboratory, the factory, as well as from the shop and bank. The limitation of problems to transactions in dollars and cents tends to give practical arithmetic a purely formal and disciplinary character; on the other hand, excursions into other fields of human activity, while sacrificing nothing of the disciplinary value of the subject, give it a varied and interesting content. Problems may be classified as simple, or those involving only one operation; and as complex, or those involving more than one operation."

This sounds well, but its value depends upon how seriously it is followed up later. But it is not followed up; indeed, it is to some extent even opposed.

In the 6A grade the statement for problems is "practical problems involving denominate numbers applied to every-day business usage." The measurements for this grade, however, include the following:

"Contents of bins in bushels; memorizing 2,150.4 cu. in. in one bushel; contents in gallons; memorizing 231 cu. in., one gallon. Reduction of contents in bushels and gallons to cubic measure. Surfaces of rectangular solids. Comparison of the units of weight used by the jeweler with those used by the grocer; memorizing 5,760 gr., one pound Troy; 7,000 gr., one pound avoirdupois."

It would be difficult to think of any subject of less practical importance, when applied to every-day business usage, than the comparison of Troy and avoirdupois weights; and the utility of each of the other measurements named above is at least open to question.

The syllabus calls for the consideration of the weight of potatoes, wheat, and oats without memorizing; but the weight of a gallon of water is to be memorized. As a consumer the pupil will probably have occasion to buy

potatoes, and possibly wheat and oats; but the probability of his using the knowledge that 1 cubic foot of water weighs 62.5 pounds is remote. Furthermore, although throughout the syllabus much is said regarding business application of number facts, not until the 8A grade is any attention directed to those institutions that are vital factors in the determination of the values of arithmetical facts for the elementary school. In this grade business forms and usages are studied, and the function of savings banks, banks of deposit, and other corporations is briefly explained. If the syllabus is serious in the desire to connect arithmetic with life, why should it not have led the way by giving examples of such connection in each grade? The explanation seems to be that, after all, it is the science of arithmetic that the authors have in mind. Arithmetic might be used to reveal the quantitative side of the life about us, in industry, commerce, business, and city government, in particular, just as fine art reveals the esthetic side, and literature the esthetic and moral side. But the science of arithmetic may be as unrelated to practical affairs as the science of grammar to daily speech; and the syllabus tends to favor this isolation.

Further work of the eighth year, besides the business forms just mentioned, is the mensuration of plane and solid figures, such as the areas of parallelograms, trapezoids, and regular polygons; the convex surfaces of pyramids, cones, and spheres; and the volumes of pyramids and cones. Other figures, such as the rectangle, triangle, and circle, are also measured. Certainly the mensuration of such forms as were last mentioned is far more important than like operations with such unusual figures as those given before; yet there is nothing in the course or syllabus to indicate that any difference in values is recognized. One statement in particular regarding the problems for this grade gives a clue to the conception of the relative values of the business forms and the mensuration. It says, "Problems should involve the indirect relations growing out of the rules for mensuration, as: If the area of a

circle is 314.16 square inches, what is the radius? Problems giving rise to simple equations involving two unknown quantities." Such topics as expenses and support of the city government and the cost of furnishing a house are not once mentioned. If relative values had received careful attention, not only would these last topics have been included, but many other topics now included would probably have been eliminated; for example, the least common multiple and greatest common divisor as definite and independent topics (now required in 5A); compound and complex fractions (in 5B); problems in denominate numbers involving three and more successive units (6A); the whole of numerous tables in denominate numbers, where only some of the facts are really wanted; the metric system (in 7A); and true discount (in 7B).

Provision for Motive

The foregoing discussion of organization and values brings us to the matter of motivation. The modern conception of the importance of interest as a factor in the learning process is leading the school to recognize the pupil's right to view matters in the light of his own experiences. To be of value, subject-matter must be sufficiently near to the child's life to present problems which he feels it is necessary to solve. Thus it happens that plays and games and household accounts have a legitimate place in the arithmetic work.

The syllabus provides in a very mild way for motivation by having the children learn to count by using objects, sounds, and motions; by reading time from the clock; by making change; and by stating that the *problems should be practical*. But on the whole, it makes little provision for the pupils' motivation. The devotion to rigid sequence, as discussed under "Organization," indicates this.

Much that was said concerning values would apply with equal force here. Although pupils are to learn a considerable number of business fractions, and their percentage

equivalents, there is no indication that these facts are approached in any concrete setting, or grow out of any need felt by the pupils.

There are two signs of want of motive in arithmetic: First, an excessive amount of drill; second, inability to solve real problems. A very large part of the teaching in this subject consists of drill, because of the want of fresh ways of approaching and reviewing the facts. And it is not at all uncommon to find classes able to do remarkably rapid and accurate work with such subjects as cancellation and the finding of the highest common divisor, that are unable to do simple problems that involve actual situations. Such classes have been drilled until they know just what is expected of them in the more or less formal processes, but real problems are so remote from their school experience that the terms employed tend to confuse rather than make concrete. The curriculum and syllabus exert no influence in opposition to these tendencies.

Mention has been made of the constructive and inventional exercises found in the 7A and 7B grades. In the Introductory Note three claims are made for this work: It has educational value, prepares for the work of mensuration in the next grade, and gives a knowledge of the constructive principles employed in mechanical drawing and construction and in shop work. Even if the first claim be granted, it provides no motive for the pupil to do this work. There is lacking even the stimulus that is operative in formal geometry, where the consciousness of finding an invincible proof is a source of satisfaction.

Of the problems of mensuration in the next grade, very few—as already shown—have any practical value in every-day life; and even these are more effectively and economically learned by memorizing when the need arises than by logical reasoning when no motive exists.

Finally, the claim that this work prepares for mechanical drawing and shop work raises the question as to whether this type of work belongs to arithmetic or drawing. The

fact that it does find a place in the drawing seems to show that there is where it belongs. But if the motive is found in its relation to shop work, and the latter is taken only by the boys, then why should it be required of both boys and girls? The fact is, it seems as if little value were really attached to these constructive and inventional exercises. They, together with much of the mensuration, impress the critic as padding between the sixth year and the eighth so as to have a "full course."

Provision for Exercise of Initiative

Under the heading of "Requirements" the Introductory Note states that "Both the course of study and the syllabus provide for the minimum requirements. Pupils capable of more rapid advancement should not be confined to the limits set in the syllabus for the grade."

The purpose of a minimum course of study is usually understood to be to make requirements so small that both teachers and the brighter pupils will have opportunity to follow their own bent to some extent. But the course is so full that teachers generally believe that nothing more could be undertaken in the time allotted to the subject.

The syllabus, at any rate, is almost destitute of suggestions as to what might be used to supplement the required work. The expressions "etc.," "exercise similar to," and "for example" each occur once. Moreover, the possibility of initiative depends much on an understanding of the aims and purposes of the activity involved. As might be expected from its failure to recognize values, the syllabus does not state aims or purposes except as they are implied in the claims for the constructive and inventional exercises quoted, and in the statement that "special importance is attached to the thorough mastery of the combinations in addition, subtraction, multiplication, and division." Intelligent initiative on the part of teacher or principal under these conditions is extremely difficult.

Why should not the syllabus have offered numerous suggestions, if this was really to be a minimum course?

The most important factor in preventing initiative in this study is the widespread belief that teachers are to be judged, and their standing determined, by the showing their pupils make when tested in conformity with this course and syllabus. In one school the head of department has distributed mimeographed copies of problems that are to be done each month, and a careful analysis shows that they are all selected in accordance with the statements found in the syllabus.

The special work of the 5A grade is common fractions. This work is described as follows: "*Oral.* Special attention to business fractions, e. g., cost of articles at $12\frac{1}{2}c.$ ($\frac{1}{8}$), at $16\frac{2}{3}c.$ ($\frac{1}{6}$), at $33\frac{1}{3}c.$ ($\frac{1}{3}$), at $\$1.12\frac{1}{2}$, at $\$1.16\frac{2}{3}$, at $\$1.33\frac{1}{3}$. *Written.* Easy fractions. Least common multiple developed and applied in addition and subtraction of common fractions; greatest common divisor developed and applied in reduction of fractions to lowest terms; cancellation developed and applied in the multiplication of fractions. Definitions reviewed."

With such an abstract outline as a guide, with the knowledge that the instruction will be rated on the speed and accuracy in exactly these topics, and with no suggestions as to broad purposes within whose range there would be some possibility of choice, what prospect is there here of any initiative on the part of either teachers or pupils?

One thing that might have been done is suggested by the course of study in another city, which contains this statement: "The chief difficulty that pupils have in acquiring the fractional processes is to interpret clearly the unfamiliar and so perplexing forms and terms used. The problem of the teacher, therefore, is to enable pupils to interpret these conventional symbols in terms of their own experience."

Here the teacher is informed that there is something else to watch besides mere processes; namely, the many ways in

which these processes are called for and used in life. That suggests the desirability of introducing the pupils into actual examples of this sort, such as the pupil might himself meet, in which undertaking a large degree of originality may be shown by the teacher, and by the pupil as well.

The work of the 8B grade is a general review of the mathematical course. The syllabus states that "the nature of the review is left in the greatest measure possible to the good judgment of the principals and teachers. Generally it should be planned with a view to correcting existing defects in the mathematical work of the pupils, and should include daily practise in the four fundamental operations with integers, common fractions, and decimals." This might seem to invite initiative, at last; but the fact is that many teachers assert this to be as dead as any part of the whole course, because a very definite test as to skill and accuracy is known to await them at the end of the term, so that the work, both in kind and quantity, is prescribed for them in full. Here, again, the syllabus might have protected itself against such a charge by requiring that the unity of certain parts of the course, as revealed by underlying principles, be established, and by suggesting other new and broad viewpoints. But that attempt is not made.

These, then, in brief, are the characteristics of the course and syllabus: They stand for a rigid sequence of subject-matter, which ignores the grouping customary in both child and adult life; they contain many things of doubtful value — in fact, so many that, if they were all omitted, the course in arithmetic might probably be reduced from eight to six years without serious loss; they make practically no provision for approaching number through its relation to practical affairs, although they suggest that it be so approached; and by their omission of reference to workable aims and principles, as well as by the abundance of requirements, they make it extremely difficult for teachers or pupils to exercise initiative in this field.

DRAWING, CONSTRUCTION WORK, COOKING, AND SEWING

The program includes:

Drawing — through the eight years for both boys and girls. Construction work — for boys and girls undifferentiated through the first two and one half years.

Boys — Cord and raffia work through the third year, and shop work through the seventh and eighth grades. All hand work for boys during the fourth, fifth, and sixth years is included in the drawing.

Sewing — for girls from the second half of the third year through the sixth year. In schools not having cooking, advanced sewing is given in Grades 7 and 8.

Cooking — for girls in Grades 7 and 8 in most schools.

Provision for Organization of Subject-matter

In brief, the organization of these several subjects may be summarized as follows:

Drawing

The work is almost wholly of two types: representative and mechanical. The drawing of commonplace objects, singly and in groups, together with quite a bit of copying as a method of developing technique, and the representation of furniture and interiors for perspective, makes up the chief work in *representative* drawing. In Grades 7 and 8 there is added a great deal of work in constructing geometric forms and in making working drawings for hypothetical projects in wood or metal. There is no direct relationship between drawings made and projects actually constructed in a shop or elsewhere. The sequence of work is determined upon a purely technical basis.

Constructive and Shop Work

The constructive work of the first two and a half years is intended to "develop in the young child the power of motor control and coördination." Subject-matter is lim-

ited almost wholly to the ideas involved in the simple processes of knotting, looping, weaving, and stitching in cord and raffia. A very small quantity of work is done in paper or cardboard. Very simple and meager opportunity is given for choice in color and design.

In shop work, Grades 7 and 8, the work is planned on the basis of a technical sequence in construction, chiefly of joints. Projects are chosen which provide for a good sequence in the use of the common wood-working tools. Technical efficiency is the chief aim. In the new course, just developing, groups of models for each particular element of technique are provided, from which teachers may select as best fits their own needs.

Sewing

In the sewing the sequence is definitely technical. The work throughout is arranged in two parts — technique first developed through specific “exercises” or practise pieces, and then application to some usable article. The “application” may not be made until a certain degree of skill has been attained in the “exercise.” The chief object seems to be efficiency in sewing as a process.

Cooking

In addition to a sequence of work providing for a simple knowledge of the cooking of numerous types of food, and of food principles, the course covers simpler phases of house-keeping, laundering, care of the dining-room, table service, nursing, dietaries, home sanitation, and marketing. In all of these topics there is a pretty well-organized body of thought provided in connection with the practical work. “Thorough housekeeping and the making of a home” are offered as the endpoints toward which details are to contribute.

In all phases of work in this field, organization of material is on the basis of technical sequence. Technique is prominent over everything else, and the technical sequences, as such, are good.

Thought material related to tasks that might be expected to make a strong appeal to children is all relegated to *Incidental* Instruction, save in cooking, where it is specifically provided for. The relationship of principles to practise, also, is markedly absent save in cooking.

The several subjects are so completely isolated that they do not correlate with other subjects, or even with each other, where this would be especially desirable, as in drawing and shop work, or art work and textiles. There are occasional exceptions in the teaching, but these are not provided for specifically by the curriculum.

The curriculum is uniform for all districts — alike for those populated by the professional and commercial workers and those populated by the hand workers in distinctly industrial neighborhoods. This of itself emphasizes the disciplinary aim and the technical sequence.

The organization, therefore, in all these subjects except cooking is planned almost solely on a mechanical basis, and correlation is omitted.

Provision for Motivation

In drawing, sewing, cooking, and in all but the last half of the last year in shop work, the projects are rather definitely prescribed by the course of study, or by the officials of the department in charge. In shop work during the last half-year any models are permitted which incorporate the constructive principles prescribed. Under the plan of groups of models from which to choose, now under development, more flexibility in shop work will be provided for the teacher; but this will not affect the pupils to any great extent.

In so far as the curriculum is concerned, motivation of the pupil is not considered as a problem at all, save as incidentally provided in the fact that children like activity and like to work with materials. The problems undertaken are not their problems, but are prescribed for them. As the products made are theirs, they may exercise choice in the

use to which they put them; but this is practically the limit to which motivation may apply. In drawing, working drawings are prescribed for part of the work in Grades 7 and 8, but the drawings made are not of projects to be used in shops. "I would rather my boys had had no drawing at all than that which they now get in working drawings. It is a hindrance rather than a help. They have so many wrong notions about it that it would be easier to teach them from the beginning," said one shop teacher.

Assuming that the development of an interest in the industrial life about us is a great purpose in this field, just as a taste for reading is a great purpose in teaching literature, the neglect of motivation in these subjects would be paralleled in literature if all the literary selections were made and arranged in sequence solely on the basis of their mechanical difficulties. While that plan would kill an English course, it would hardly prove more deadly in that field than in this.

Provision for Initiative

The provision already noted, for selection among a prescribed group of models, or selection without other limitation than that prescribed technical elements are included, permits of some choice in upper grades. But this is so very insignificant, as presented in the courses of study, that one may fairly say that it was not considered as a problem in making the courses. It is not specified *who* may make choices. Teachers may prescribe all of the work and fulfil the courses of study, not permitting any initiative on the part of children in the matter.

Consideration of Relative Values

The curriculum provides practically no opportunity for consideration of relative values. Suggestions indicating the relationships of the work to life and considerations of

worth are relegated to a place entirely subordinate to technical processes. They are suggested as appropriate for "incidental instruction," which usually results in their omission. The very arrangement of the work (as in sewing), exercises first, then applications — practise pieces, in which a certain standard of excellence is to be attained, before using the activity in any project — exalts the technical aim above all else.

Conclusions

From the standpoint of mere technical sequence the curriculum is well developed in all of these subjects. In cooking the course is also meritorious in a well-proportioned amount of thought content concerned with principles and the more intimate relationships of home-making.

On the other hand, the narrowness in organization, the failure to provide for motivation, or for initiative on the part of either pupils or teachers, and the entire neglect of all values not inherent in technical processes and activities, are all defects which reduce the educational values of the work to a minimum. Nothing less than a complete change of viewpoint in the organization and development of the curriculum, in terms of both social values and child psychology, could do much to broaden the work as it ought to be broadened.

GEOGRAPHY

A Sample of the Curriculum

As a sample of the course and syllabus in geography, fairly representative of their attitude toward the standards proposed, the work for the second half of the fourth year — called Grade 4B — is here reproduced in full. It is taken from the course of study dated 1911.

GRADE 4B

Course of Study

THE EARTH. Daily and yearly motions; zones.

EASTERN AND WESTERN HEMISPHERES. The continents; their location; bordering waters; chief mountain ranges; great rivers; animal and plant life; peoples; chief countries; large cities.

Duties of citizens and public officials.

Syllabus

EARTH STUDY. Daily and yearly motions; the equator; prime meridian and zones studied from a globe and from a map.

THE CONTINENTS. Names; location and relative positions. Names and locations of the five oceans; North, Baltic, Black, Mediterranean, Red, China, Japan, Caribbean and Bering seas; Gulf of St. Lawrence, Gulf of Mexico, Gulf of Guinea, Hudson Bay, Baffin Bay, Bay of Biscay, Bay of Bengal; Appalachian, Rocky, Andes, Alps, Ural, Caucasus, and Himalaya mountains; Mississippi, Missouri, Ohio, Hudson, Columbia, Rio Grande, St. Lawrence, Amazon, Plata, Rhine, Volga, Danube, Nile, Kongo, and Yangtze rivers.

ANIMAL AND PLANT LIFE. A few of the principal animals and plants of the hot, cold, and temperate countries.

PEOPLES. White, black, yellow, brown, and red races.

CHIEF COUNTRIES AND LARGE CITIES. Names and locations of the United States, Mexico, Brazil, Chile, Argentina, England, France, Germany, Russia, Italy, Austria, Hungary, Spain, Egypt, China, Japan; New York City, Chicago, Philadelphia, Boston, St. Louis, San Francisco, New Orleans, Washington, London, Paris, Berlin, Rome, St. Petersburg, Cairo, Calcutta, Hongkong, Peking, Tokio.

GOOD CITIZENSHIP. Street-cleaning Department. Col-

lection and disposal of refuse; use of rubbish boxes; street cleaning; street-cleaning leagues.

Duties of Citizens. To keep receptacles for garbage covered; to refrain from throwing papers, fruit skins, and other refuse into the street or on the sidewalk; to refrain from obstructing sidewalks or thoroughfares, from throwing anything from windows, and from defacing walks, fences, or buildings.

Health Department. Medical School Inspector; school nurse; vaccination; contagious diseases; necessity for quarantine; birth records and certificates; inspection of milk and other foods; sanitary supervision of water supply; disinfection of houses.

Duties of citizens in regard to cleanliness of body, of clothing, of dwelling, of streets; immediate report of cases of contagion; respect for Health Board notices; anti-spitting laws; child labor laws; requisites for obtaining an employment certificate.

(See Introductory Note in Civics.)

Relation of Subject-matter to Purposes and Initiative of Children

Take, first, the two standards together that test the extent to which the interests, and the need of initiative on the part of the children — namely, the child's point of view — have influenced selection of subject-matter and suggestions on method.

Confining our attention to the geography proper in the part reproduced (i. e., omitting from consideration at this point the part on Good Citizenship), we find nothing suggesting any consideration whatever of children's interests. Although it is customary among progressive teachers of geography to arrange their facts around questions or topics that appeal to children, there is no indication of any such tendency here. Nor is any such tendency manifested elsewhere in either the curriculum or syllabus for geography. The point of view is completely that of the adult, the ques-

tion being, What geographical facts will some day be needed, no matter how unrelated to the learner they may be now?

Provision for encouragement of initiative of either teacher or pupil by directing attention to the broader aims and principles of instruction, such as the causal idea, that give the key to method; or by proposing different sequences that require choice; or by urging the importance of approaching each topic as nearly as possible from the point of view of the particular children at hand, is just as strikingly lacking. Even proposals for the variation of home geography according to variations in environment are almost totally wanting. On the other hand, fixed sequence and uniformity of approach for all children seem to be the things desired. As evidence of this statement, observe the suggested plan of study, as follows:

"In studying the continents, as wholes, attention should be directed to their comparative sizes (North America being taken as the unit), relative positions, their general contour, their great mountain systems, their great rivers, their large seas, gulfs, and bays, and their important neighboring islands. Then should follow the main political divisions and the positions of important cities.

"In studying a country the following series of topics, as far as they may be applicable to the country under consideration and in the grade in which the lesson may be given, is suggested:

- "1. Location as determined by latitude and longitude, and with relation to surrounding countries and waters.
- "2. Comparative size and shape.
- "3. Mountain systems and important ranges; slopes and plains.
- "4. River systems and important rivers.
- "5. Important cities, their location and their comparative population.

- "6. Climate, industries, products, and areas of production.
- "7. Form of government and general condition of the people as to education and ways of living.
- "8. Exports and imports; trade, particularly with the United States."

This is a plan of study proposed for all grades. In studying Holland many a teacher would prefer to begin with its most striking features; namely, the position of much of its land below water level, which would perhaps come under the third point here.

In studying Brazil many a teacher would prefer to begin with the fact that much of our coffee is imported from that country, and then trace the reasons for so much coffee production there. That would turn this proposed sequence topsy-turvy. In teaching Japan many a teacher would like at the start to raise the question how it happened that that little country was able, in the recent war, to defeat the Russians so completely. In searching out the geographical reasons for this victory, the suggested plan would again be completely upset. Any one must admit that any single sequence, no matter how good, if always followed, would be likely to make the instruction formal.

The reply to these criticisms may be made that the proposed plan of study is *suggested*, and that teachers are entirely free to follow any other order desired. But while there are probably many teachers who assert this freedom, we are convinced that the majority of teachers regard this sequence as practically obligatory. We have talked with a large number who have expressed this conviction. We have been much impressed, also, with the emphasis placed upon this sequence in the syllabus. For example, we have found in the syllabus for Grade 5A, under the heading "North America," the direction that "This continent and its countries *should* be studied in accordance with the plan presented in the Introductory Note" (that is the plan quoted above).

Again, even on the same page, after a list of seventeen states of the United States is given to be studied, the direction is added, "Each state should be studied as far as practicable in accordance with the plan suggested for the study of a country." In 6A, further, we find the direction, "The countries assigned to this grade should be studied in accordance with the plan presented in the Introductory Note." We find the same thing repeated again in 6B; again in 7A; and finally in 7B. This must at least be a very earnest suggestion when so much space out of only twelve pages in all is given to it.

While there is not a thing in the syllabus urging teachers to forsake uniformity for individual ways of treating topics, there is another paragraph in the Introductory Note showing an unqualified devotion to uniformity. It reads as follows:

"Most of the work in geography should be done in the class room. Very little if any study at home is necessary. The lesson should generally begin with a study of a globe or a map. This should be followed or accompanied by the reading of pertinent selections from the text-book or supplementary reader. The selections should be read aloud in class, and pupils should be expected to answer questions after a single reading. Then some time should be spent in copying the map roughly from the book or from the wall, indicating such phases of the subject as have been studied. The next lesson should consist largely in questioning the pupils with the map before them and in requiring them to make rapid sketches of maps from memory. This exercise is the best method of fixing geographical knowledge and of showing the pupil how accurate or inaccurate his knowledge is. It is, moreover, the easiest way to teach much of this subject, as well as the easiest way to test the definiteness with which the subject has been learned."

Certainly uniformity is at a premium when any educational authority will attempt to state how several thousand teachers of geography, ranging from the fourth through

the eighth grade, should "generally begin" a lesson, and what they should do "then," and "then."

So far as the syllabus itself is concerned, therefore, it seems fair to say that it interprets the term "suggested" above referred to as a mere euphemism for "required."

Further proof of this interpretation is found in the fact that in at least some of the schools the district superintendent, in his rapid examination of children in geography, is accustomed to have a large card bearing this list of eight points hung up before the class. Then, in the review of any country, the children follow this order of topics, speaking rapidly. One teacher, who revolted at this plan, followed a different order, of her own, and placed it upon a large card. In order to satisfy her district superintendent, however, in case he should appear, she placed on the other side of the same card the outline that she knew he might want. On appearing one day he called for the "chart," and, by mistake, the wrong side was exposed to view without his observing the fact. When the children had begun to recite from it, however, he looked up with surprise, and, seeing the unexpected substitute, he expressed his disapproval in unqualified terms. He had charge of approximately 800 teachers, and it was his duty to give each one a rating that was a prominent factor in determining promotion and salary.

Care in Organization of Subject-matter

There is a tendency in all studying to drop down to the single, isolated fact as the sole unit of progress, and thus to abandon all thought of organization. In order to counteract this tendency it is one of the special duties of the curriculum to present its subject-matter grouped into large wholes having closely associated parts; in that way it can exert a marked influence on class-room procedure.

The extent to which care in this direction has been exercised in this case is indicated in the plan of work for Grade 4B, quoted on page 129. We find there six continents to

be located; five oceans; nine seas; seven gulfs and bays; seven mountain systems; fifteen rivers; sixteen countries; and eighteen cities — eighty-three in all, and each one named. And this composes most of the work in geography proper for that half-year. More isolated facts could scarcely be proposed for a curriculum. In the course for Grade 5A the part requiring most time is the following:

“United States. States: Massachusetts, New York, New Jersey, Pennsylvania, Maryland, Virginia, District of Columbia, Georgia, Florida, Louisiana, Texas, Missouri, Illinois, Ohio, Minnesota, Colorado, California, Washington. Each state should be studied as far as practicable in accordance with the plan suggested for the study of a country.”

In thus directly recommending and even urging the study of the United States by topics so small as individual states, the syllabus stands for a lack of organization that has long caused groaning in this city by both teachers and pupils.

But, in addition, look at the much emphasized outline of eight topics quoted on page 131, which “should be followed as far as possible” in the study both of these states and of all countries. No. 1, location, is unrelated to No. 2, size and shape. No. 2 is unrelated to No. 3, mountain systems, slopes, etc., except in rare instances. No. 5, important cities, here precedes No. 6, on climate, industries, and products, although causally it follows those topics; and No. 8, on imports and exports, is a direct consequence of No. 6, although form of government, as the seventh point, is allowed to break this connection. One cannot help wondering wherein lies the superior virtue of this arrangement of topics. No person can be expected, on reading them over once or twice, to reproduce them in order through appreciation of their interdependence. They are a list rather than a series, although called a series in the syllabus.

Criticism of this list has already been offered on the ground that insistence upon any one fixed order seriously interfered with the exercise of initiative of both teacher and

pupil. Now, however, the criticism is offered that this order itself shows a lack of appreciation of organization, and insistence upon it leads directly away from organization, rather than toward it. If the syllabus had merely listed these topics as the ones usually most valuable; had forcibly urged the importance of close association of facts; and had given a few examples showing how association must be secured differently in different countries, then poor teachers in all the grades might at least have felt their freedom, and their results would have been as good, if not better, than now; while the good teachers, conscious both of their freedom and of what good sequence is, would have far surpassed present results.

If, after considering these facts, one turns to the course for Grade 4A and sees that Home Geography, Local History, Good Citizenship, and The Earth are offered as main topics without the slightest attempt to interrelate them; if one turns to the eighth year and finds Physical Geography in the main separated from Commercial Geography; and if one then discovers no plan for close correlation between the geography and history, one cannot easily avoid the conclusion that organization of subject-matter has, somehow, been overlooked in the curriculum in geography.

Attention to Relative Values

As previously stated, every study contains a lot of minor, more or less formal, facts, such as dates in history and individual words in reading, and another lot of more fundamental ideas which in a way carry the others and constitute the life of the subject. The proper emphasis of the latter, and consequent subordination of the former to them, are matters requiring much attention to relative values.

The history of geography reveals these two kinds of subject-matter very strikingly. Thirty years ago geography was eminently the "science of location." Countries were bounded, mountain systems and rivers were traced, and

cities were located, without limit. Maps and map drawing were resorted to in almost every recitation as one means of reviewing and fixing position, and drills on such facts were as prominent as drills in spelling. The highest aim was the vivid picturing of a portion of the earth's surface, or, better, of maps; and as everything was conceived of as in a fixed status, "static geography" was the only kind known.

Since that time the fact that the whole earth's surface has, in accordance with great laws of nature, undergone and is still undergoing endless change has worked its way down to elementary school geography and revolutionized that subject. The fundamental idea of the subject at the present time is that of *force*, and on that account geography is now said to be "*dynamic*." The tracing of the influence of natural forces upon the earth's surface as it is related to man, has made causation the most prominent idea in every good course of study, and has led the principles of geography to be regarded as the real substance of the subject. This great change is manifest even in home geography, for children in very many schools now begin the subject by learning how soil is formed, how hills, mountains, and valleys are made and destroyed, how water is carried by the winds, etc.

The location of places is not omitted; in fact, children after leaving school can now probably locate important places more successfully than formerly. But location has been approached much as a new word in literature, i. e., in the midst of a context that is worth while; and it has been reviewed, so as to be remembered, by abundant associations in chains of thought, touching industry, commerce, and natural law, that have real substance.

What conception of geography does this curriculum seem to stand for? Is it a *static* or a *dynamic* one? For a suggestion as to the answer turn to the latter part of the Introductory Note quoted on page 133. We read there that "Very little or any study at home is necessary." That seems somewhat surprising, if geography is a subject with

a real content, comparable to that in history or literature. But further on we find rapid sketching from memory recommended, with the statement, "This exercise is the best method of fixing geographical knowledge. . . . It is, moreover, the easiest way to teach much of this subject. . . ." One wonders "How much?" And when, in these four pages of introductory notes, we find not a single reference to the need of subordinating the more formal facts to the others, a suspicion is awakened that there are no others and that the whole point of view is static.

Now turn to the course itself to see. The old-style bounding of countries and states is fortunately eliminated by the suggestion in Grade 7A, "Pupils will be expected to locate any state by reference to a neighboring state or to some physical feature, such as a body of water or a range of mountains."

But if we examine the home geography in Grade 4A, we find map-drawing to be the beginning topic, and location of points in New York City to constitute most of the other work that is strictly geographical. In the course in nature study for Grades 3 and 4 there are also some geographical topics, but they, too, are remarkably formal when compared with what is now done in home geography in many places. It would be hard to imagine a course more formal than that for Grade 4B. In the other grades the great emphasis on location, the omission of direct reference to the importance of causation, the insistence that the same formal outline be followed alike in the study of all countries and states, and the delay of all reference to physical geography — which must usually be the starting point in the causal chain — until the eighth year of school, when geography is an optional subject, if a foreign language is taken — all these facts together make this curriculum static and dead.

This course, as found in print, shows as a whole almost no influence from the educational thought in the United States during the last twenty-five years; and its character is a direct hindrance to good teaching of geography.

The regular amount of time allotted for this course is twenty-seven minutes per day in Grade 4; twenty-four minutes per day in Grades 5 and 6; and three forty-minute periods per week in Grade 7. It is possible that an average teacher might do the exact amount of work prescribed, in the way prescribed, within this time; but if any teacher attempted to add enough subject-matter to give life to the formal work, the time would prove utterly inadequate.

PHYSICAL TRAINING

Character of the Curriculum

The following paragraph is taken from the Introductory Note for the curriculum in physical training:

"Gymnastic exercise should conserve organic vigor, lead to correct posture, and train to quick and definite action. It should be based upon muscular coördinations, and should make a progressive demand upon muscular effort, complexity of movement, and power of heart and lungs. All available means of arousing and maintaining interest, such as the use of apparatus and a change from class-room surroundings, should be employed."

In accordance with this paragraph, the lessons in physical training consist of freehand and light apparatus exercises, and games. Each year's work is arranged in series of lessons, each lesson to be given for a stated number of periods. In the lower grades this work takes place in the class room. In the upper grades, where light apparatus is used, the pupils frequently exercise in the gymnasiums, courts, or yards.

In the first three grades emphasis is placed upon marching, with drill in obeying commands. The children are urged to pause between the two parts of each command, and always to wait for the executive command.

In the arm stretchings and hand placings, "voluntary and isolated control of the arm as a whole" is sought. These

exercises are followed by skipping, stretching, and breathing exercises. "In all respiratory exercises the children should be urged to a forced respiration. Exaggerated lifting of the shoulders should be avoided." Leg bending, rising on toes, trunk bending, arm circling, hand clapping, and point steps follow in order. The lessons usually conclude with a trunk-bending exercise.

The following is a typical lesson:

GRADE I — FIRST HALF-YEAR. LESSON VI

1. Stretching.
2. Marching and skipping. Arms folded behind — Place!
3. Breathing — Begin. Three times. Hands on hips — Place!
4. Hand on shoulder, right — One! 8 — 8 — 8.
5. Arm stretching sideways, right — One! 8 — 8 — 8.
6. Rising on toes — One! 8.
7. Bending leg upward, right — One! 8 or 16. Hands on hips — Place!
8. Trunk bending sideways, right — One! 8 — 8.

Of the five lessons per week, the syllabus requires that at least three be given to gymnastic work. "Not more than two days per week (thirty minutes) may be devoted to the games, training for the button test, class athletics, or folk dancing named at the end of the syllabus." This quotation from the general introduction to the course of study indicates the emphasis placed upon formal gymnastics. The tendency is to minimize the work in games and to make the physical training primarily gymnastic drill.

In more than twenty classes observed only those above the sixth grade were taken to the gymnasium for physical training. The result of a questionnaire given to 207 girls who, less than a year ago, completed the elementary school course in 53 different schools in New York City shows the following:

Those having had no games in school.....	32
Those having had games out of doors.....	24
Those having had games out of doors sometimes	15
Those having had games in class room and gymnasium	131
Miscellaneous answers	5

Of the 131 girls who played games in class room and gymnasium, 85 had this work only after they entered the seventh and eighth grades.

Of the 207 girls questioned, 151 had had physical training every day; 47 had had it two, three, or four times each week; the other nine had had two-minute drills after each lesson. Remembering that there are only five periods per week given to this entire subject, we get here rather definite information as to the prominence of the games.

In many schools there are no facilities for running, folk dancing, and athletics. Teachers are not trained to do this kind of work and have little interest in it. It takes time for forty children to pass from a fourth-floor class room to a basement gymnasium or court. Teachers have not the time, strength, or desire to do this extra work; hence the time planned for games and dancing is very often devoted to gymnastics in the class room.

In many buildings, too, the courts or gymnasiums are dark, poorly ventilated, and generally unattractive and unhygienic. Teachers feel that gymnastic exercise given in the class room is a legitimate substitute.

Teachers explain also that during the games children become noisy and unmanageable. It takes time to get them settled down to work again and entirely under control.

Provision for Motive

It is plain from all this that the curriculum in physical training is composed chiefly of gymnastics, planned from the adult viewpoint exclusively, like the course in arithmetic (page 113). The needs of the child, to be sure, form the basis for the plan, but not those that he is himself actively interested in. Unless he is greatly concerned about his

health in general — and he would be in an unhealthy state of mind if he were — and unless, also, he is able to appreciate the importance of correct posture and muscular co-ordination, most of this curriculum must seem to him mechanical, unnatural, and lifeless.

Interest, according to the Introductory Note quoted at the beginning, is declared to be desirable, but it is simply as a means of carrying the pupil through the movements, and not as an important end in itself; and there is little attempt to choose subject-matter in the field that can arouse interest, as literature arouses it. In other words, while modern educational theory requires that the formal elements in beginning reading, geography, history, and many other subjects be subordinated to others that are stimulating, and while the best modern practise in these fields centers in this effort, that entire conception is in the main ignored in this physical training.

We are convinced that the pupil's attitude toward the subject is as important in this field as in any other; indeed, probably more important, since health is so much involved. Physical training should develop an interest in play, a knowledge of games, and a skill in them, that will permanently identify one with healthy sport, just as literature should develop a permanent taste for reading, and nature study a permanent enjoyment of plants and animals.

This being accepted, a curriculum in physical training should be selected with reference to the pupil's interest, just as in the case of these other subjects. That means no abandonment of the health aims that seem to the adult desirable. In fact, they can be gained as well, or better, through exercises that are natural, spontaneous, and enjoyable. Movements performed on the gymnasium floor or in the playground can involve the same principles and elements as those belonging to class room, laboratory, and studio, while their richer content will make them much more effective with the child. But this plan does mean the subordination of the adult's view to things that seem worth while to

the pupil. He should run in proper form, or keep the body erect and hold his bow and arrow in a prescribed way, not because he wants to have a flat back and high chest — the adult's objects — but because he knows that these positions bring results, and he wants to win the race or prove his skill as a marksman.

So he should bend the arms and legs, and develop other portions of the body, by climbing, running, dancing, and by performing other activities that, by their long popularity, have become classic. The absence of even a tendency toward this conception of physical training seems to us a reason for condemning this plan of instruction, so far as provision for motive is concerned.

Initiative in Teachers and Pupils

Considering again the typical lesson given, one asks, What is there here that allows the initiative of a six-year-old child? What interest has he in breathing exercises, especially when he is urged to hold the chest high, to lower the shoulders, to inhale through the nostrils, and to exhale through the mouth? Why should he be interested in bending his arms in a definite way for a stated number of times and to the teacher's count? The marching and skipping exercises are suggestive of more freedom, but unfortunately they cause too much noise, confusion, and dust, and are therefore generally omitted. But when they are given the children are held down to the dull monotony of the teacher's count, sometimes varied by the tap of the ruler, the clapping of hands, or the snapping of the fingers. The children must march in attempted military form, with weight on toes, chin in, chest high, hips back, and the steps must be carefully numbered and regulated in order to bring each child to his place by his desk at a given time. There is little provision for initiative here. In that respect such exercises contrast strikingly with physical training in which the pupils express an interesting idea or emotion by dancing, pantomime, or other dramatic representation; or in which

the muscular effort put forth aims at some definite effect, as in the maintenance of squad formation in marching, in hitting a ball, throwing a ball into a basket, swimming to a given point, outrunning a competitor, or in any one of the infinite number of things to do in games.

And note the freedom granted to the teacher:

"The gymnastic exercises are arranged in programs or lessons. Each lesson is intended to be given entire every day for two weeks."

If this plan is carried out there is little time left for games and dancing, except in the recess period, which many teachers disregard. And remembering that each lesson is to be given in entirety each day for two weeks; that the teacher is expected to adhere strictly to the order in which the lessons are arranged; and that the work must stand the criticism of the supervisor, who judges the teacher's success by the children's ability to do the prescribed work; it appears that the teacher has as little opportunity for originality, choice, and initiative as the child.

Organization of Subject-matter

Does the subject-matter suggest a field of scattered ideas and isolated facts, or is it grouped in large wholes consisting of closely related facts?

This standard of criticism is more difficult to apply to physical education. It is more easily applied to those subjects in which the course of study deals directly with ideas than to a subject dealing with motor activity through which ideas are expressed. If the lessons for each grade consist of skeleton outlines lacking in suggestion, barren of interesting material, and intended only to attain certain physical results, then the necessity for organization of material is slight, save as certain exercises are selected and progressively arranged to provide for nutritive stimulation, postural correction, and psychological control. If, on the contrary, the work in physical education is considered as a part of the natural, present life of the child; if it offers

material through which the child can live out freely and joyously the things in which he finds present interest, then the course of study can no longer be an outline of cold, unrelated, trunk-bending, arm-stretching, and breathing exercises, but it will suggest material correlated with many home and school activities and interests, in the enjoyment of which children will bend their knees, stretch their arms, and breathe naturally.

The following quotation from the introduction to "School Gymnastics" gives a general idea of the principles upon which the arrangement of lessons and exercises is based:

"The order in which the exercises are arranged follows a general plan, which gives all-over exercise in each lesson without overfatiguing one part. The lessons all begin with a preliminary stretching of the arms upward and sideways, to assist the body to a good standing posture from which to take the exercises that follow, and with a drill in marching, facing, and running which secures general attention from the class and gives opportunity for ventilation. A breathing exercise is taken, and is followed by the regular table of exercises. This table begins with work for the extremities — the arms and legs — to increase the flow of the circulation away from the central part of the body. The central part of the table contains jumping exercises which, like the running, produce maximal effects upon the circulation and respiration. The table closes with trunk exercises, which, in their use of large muscular groups, again approach maximal effects, though not such as to embarrass the respiration as do running and jumping. The progression of the exercises and their grading for children of different ages are governed both by their physiological and mechanical difficulty and by the child's ability to isolate or coördinate muscular movement."

Here is clearly indicated the emphasis placed upon physiological and mechanical processes.

It is the coldly logical and scientific attitude that is in

control, rather than the pedagogical, and it has the same general effect that arrangement of subject-matter from the standpoint of pure science in any field has upon children. In this case it trains the body too exclusively, without sufficient regard for the attitude of the mind and for the indirect effects of exercise upon disposition and personality; and it develops various forms of ability which are not, in identity, similarity, or analogy, closely enough related to the interests and activities of human life to justify the time and effort given to them. When physical education presents a program which is psychologically and physiologically sound, and therefore pedagogically acceptable, it will find itself in organic relationship with modern educational thought to a degree hardly hinted at in this arrangement.

Attention to Relative Values

Do fundamentals receive proper emphasis, and are the more formal and less important parts subordinated to the vital and more real ones?

A study of the syllabi in physical training convinces one that much thought has been given to the progression, arrangement, and combination of exercises. The matter of proper arrangement and emphasis depends upon the viewpoint. It is stated that postural correction has governed mainly both the selection and combination of exercises. If postural correction is the most important end to be gained in physical training, and if this can be obtained through artificial and mechanical means, no doubt the arrangement here suggested is not to be questioned. If, however, instead of being considered the end in physical training, posture becomes a definite, needed, and much desired means to the attainment of certain interesting ends, far broader and farther reaching, the emphasis is shifted. Then the mechanical forces appear no longer either in the lead, or in isolation. Connected naturally with the activities in which he is interested, these more formal elements give

up much of their formality in favor of the active, developing child and fall naturally into place as means by which he is able to do the things in which he takes present delight and satisfaction.

Applying this standard, we find that the course of study shows marked emphasis upon posture and coördination. The lessons and exercises seem planned to bring about these results, and all other aims are relatively subordinated. According to the aims of physical training as stated in the introduction to the course of study, this course of procedure seems logical; but measured by broader psychological values and principles, these ends become of secondary importance and the course of study appears mechanical and illogical. It is lacking in proper emphasis of the more vital and real elements in physical education.

Summary

In weighing this course of study we have assumed that a good course in physical training should be judged by the same general standards as a curriculum in any other subject; that is, we have assumed that its worth lies first of all in its appeal to the *mind* and feeling of the pupil. In order to make this appeal it cannot be composed merely of a list of movements, although it may include movements; but it must have a content comparable in richness with that of literature, or music, or industrial art, or nature study; and through this rich content it must affect the leading habits of the pupil within its realm, just as each of these other subjects is expected to affect leading habits within its field. In brief, it is responsible for influencing the child's tastes and purposes, with reference to physical exercise and sport; his habit of attending to relative values in this field; his tendency to organize his experience along this line; and his self-reliance in executing plans for taking exercise and playing games.

Judged by this standard this course and syllabus are quite unsatisfactory.

HYGIENE

Quotations Showing the Character of the Curriculum

In the course of study, physical training and hygiene are considered together. Since, however, according to the scheme of work outlined in the syllabi, there appears no close relationship between the two, it has seemed permissible to discuss them under separate headings. The following quotation from the Introductory Note in the course of study for physical training and hygiene suggests the scope and character of the instruction in the latter subject:

"The teacher should aim to lead pupils to cultivate habits of cleanliness; to care for health, eyes, ears, mouth, teeth, and nose; to give attention to food and clothing, ventilation, rest, sleep, and play; to maintain good position while standing, sitting, writing, sleeping, and walking. The important facts with reference to growth, structure, and care of the body, and the conditions under which it works most effectively, should be taught in a progressive way, so that one specific topic may be made prominent each year. As required by law, physiology and hygiene are to be studied with reference to the effects of alcohol, tobacco, and other narcotics on the human system."

More detailed directions, typical of those given for a particular grade, are found in the following paragraph, pertaining to the 2B grade:

"Instruction should be given to pupils in regard to the most wholesome foods; the importance of regularity of eating; growth and nutrition. The lessons should include a brief description of the anatomy, composition and care of the teeth, and the importance and beauty of good teeth.

"Effects of alcohol and narcotics. The teacher in preparatory oral lessons should consult one or more of the text-books in physiology and hygiene presented by the Board of Education."

For further discussion of instruction in this subject, see discussion of recitation observed, page 52.

For Grade 7B the following work is outlined:

"Pupils should be taught the important facts concerning respiration; the anatomy of the lungs and the mechanism of breathing; the general structure of the heart, lungs, blood vessels, and lymphatics; and the relation of tobacco to the growth of the body in size and strength."

In planning the course the aim has been to make prominent each year one specific topic. To this end the following arrangement has been adopted:

- Grade 1A. Cleanliness — Effects of alcohol and narcotics.
- Grade 1B. Cleanliness of different parts of the body.
- Grade 2A. Dietetics — Effects of alcohol and narcotics.
- Grade 2B. Foods.
- Grade 3A. Clothing, play, posture — Effects of alcohol and narcotics.
- Grade 3B. Posture, endurance, speed.
- Grade 4A. Pure air, ventilation — Effects of alcohol and narcotics.
- Grade 4B. Care, use, and structure of the different parts of the body.
- Grade 5A. Emergencies — Effects of alcohol and narcotics.
- Grade 5B. First aid.
- Grade 6A. Board of Health — Effects of alcohol and narcotics.
- Grade 6B. Contagious disease.
- Grade 7A. Study of the body — Effects of alcohol and narcotics.
- Grade 7B. Anatomy of throat, lungs, etc.
- Grade 8A. Nervous system.
- Grade 8B. Habit formation.

Attention to Relative Values

The effects of alcohol and narcotics is the only topic taught in every grade. This work is presented through

the reading of text-books in class. These texts treat formally the effects of stimulants and narcotics in various anatomical and physiological relationships of the distillation of alcoholic drinks, and of the sure and horrible effects of smoking and drinking.

In the syllabus the subject of alcohol and narcotics is given a separate and entire paragraph, while the subject of cleanliness is referred to directly only in Grades 1 and 7, and indirectly in Grades 2 and 4.

We do not believe that temperance hygiene should be disregarded; the criticism is upon the emphasis given to it. If the personal and physiological aspects were subordinated, and the emphasis placed upon the social, industrial, and economic aspects, personal and civic health would be encouraged and abstinence made more likely.

By the arrangement of the course of study the subject of alcohol and narcotics is given first place, and that of the anatomy of the different parts of the body is placed second in importance. In Grades 2, 4, 7, and 8 decided emphasis is given to this subject, while in one grade only — the sixth — is reference made to civic health. Respiration is to be studied in Grades 3, 4, and 7, while the subject of the prevention of disease, a matter of prime importance, is mentioned in the sixth grade only.

In many of the schools hygiene is entirely neglected, unless one may consider the "morning inspection" a substitute for it. In a few of the buildings old "Temperance Primers" are used in the primary grades. In general, however, the hygiene that is offered is given above the sixth grade.

If the formation of correct habits be the aim of this course, it is reasonable to believe that it should provide health instruction for children before they enter the sixth grade. Especially is this true since so many of the foreign children leave the public schools as soon as they can obtain their working papers — at the conclusion of the 5B grade.

The conviction that most of the instruction in hygiene

resolves itself into the teaching of physiology, anatomy, and alcohol and narcotics, that this instruction is given mainly in the upper grades, and that it is left largely to the discretion of the individual teacher, is substantiated by visits to many schools and by personal talks with supervisors, principals, and teachers. It is verified also in a very interesting although perhaps less reliable way by a questionnaire to which answers were received from 200 recent public school pupils, representing more than forty different schools in the city.

Of these pupils, 138 stated that they had had hygiene during their elementary school course; seventeen said they had had physiology; twelve had had no work of this kind; and about thirty had had "very little." At first sight this result seems encouraging, since it indicates a decided emphasis upon health instruction. When, however, these pupils were questioned regarding the topics studied, the result showed quite a different emphasis, and indicated that anatomy, physiology, alcohol, and narcotics are being taught in the schools under the name of "hygiene," so that pupils are leaving the public schools ignorant of the true meaning and significance of health instruction. The result of the questionnaire shows that the hygiene in the more than forty schools included the following topics:

Structure of the lungs mentioned by about 90 per cent of the pupils						
Structure of the heart	"	"	"	87	"	"
Fresh air	"	"	"	80	"	"
Structure of the skin	"	"	"	75	"	"
Bones	"	"	"	75	"	"
Care of the hair	"	"	"	70	"	"
Alcohol and narcotics	"	"	"	70	"	"
Stomach	"	"	"	68	"	"
How and when to bathe	"	"	"	50	"	"
Civic League	"	"	"	20	"	"
Department of Health	"	"	"	15	"	"
How to care for your bed	"	"	"	12	"	"

The fact that the subject of fresh air was mentioned by about 80 per cent of these pupils may be due to the influence

of the little book on Tuberculosis which has been placed in the hands of teachers by the Board of Health. Invariably in schools in which this book has been used the pupils mentioned fresh air as a topic discussed.

That about 70 per cent mentioned the care of the hair as a subject discussed is suggestive of the influence of the school nurse and of the so-called "morning inspection." It is significant, also, that the organization of civic leagues is reflecting a helpful influence upon the hygiene in the schools.

When it is noted that the number of those mentioning the Department of Health falls to 15 per cent, and that only 12 per cent had been told how to care for their beds, while about 90 per cent had been taught the structure of the heart, the overemphasis on mere anatomy is strongly suggested. From given lists these pupils were asked to select those topics which were most frequently discussed in their hygiene work. The following results were obtained:

Structure of the lungs mentioned by about 90 per cent of the pupils							
Structure of the heart	"	"	"	86	"	"	"
Stomach	"	"	"	70	"	"	"
Alcohol and narcotics	"	"	"	50	"	"	"
(including how alcohol is made)							
Department of Health	"	"	"	10	"	"	"
Prevention of sickness	"	"	"	2	"	"	"

These results, corresponding in general with those before noted, give added evidence of the emphasis on anatomy and physiology and of the disregard for hygiene.

Considering the relative importance of these things in life, serious error, we think, has been committed here. Undue emphasis has been placed on the more formal and less valuable parts, while the more vital topics have been subordinated. And not only are the wrong topics emphasized, but the worth of knowledge is overestimated. The tendency now is to value mere information in this field

less, and to esteem more highly useful reactions and habits; but there is little manifestation of that tendency in this plan.

Organization of Subject-matter

This subject might have been organized around the pupil's own interests, but there is far too much that is purely anatomical and physiological to permit that arrangement. Or it might have been correlated, in important parts, with the physical training; but there is no evidence of serious attempts in that direction. Or it might have been intimately correlated with nature study, so that the pupil's interest might have been greatly increased and he might have been relieved of the danger of a disturbed self-consciousness by approaching the structure and function of his own body through the study of plants and animals; but this possibility, also, has been overlooked. In fact, there is little organization here; the course is principally a list of topics that, supposedly, a child ought to know. This criticism is not given, however, without appreciation of the fact that under a few of the subjects emphasized in the course there are suggested helpful, interrelated topics which, if valued and intelligently utilized by the teacher, might result in making the work in hygiene of much worth.

The fact should be borne in mind, also, that the law in regard to temperance instruction makes it difficult to plan a well-organized course.

Provisions for Motive and Initiative

Enough facts have, perhaps, already been presented to show that little provision has been made in this course either for the motives of children or for the exercise of individuality of children or teachers.

Yet of all subjects hygiene needs most to be related to a child's own interests and purposes, since it should affect his conduct directly. The truths that it offers should be a mere means by which habits may be established. But the

instruction as here planned appears largely indifferent to any result beyond information. It is a bald presentation of facts, without that setting which makes one reflective in regard to them until they become parts of habitual trains of thought.

For example, as an abstract subject, food is most uninteresting, especially when the emphasis is placed upon nutrition; but in the cooking room, where the child has the opportunity of seeing the food in process of preparation, and takes an active part in its preparation, the subject of food becomes of present interest. With such an approach, hygienic principles may be discussed, and hygienic habits inculcated through the use of material directly related to the child's present interests and activities.

So almost any one of these topics can be made influential on conduct when approached in a skilful manner. But such approach is by no means a matter of method alone. It depends nearly as much upon skill in selection and arrangement of subject-matter as upon skill in presentation. One of the discouraging facts about this curriculum is that the task has seemed too easy. At least the manner of performing it reveals no deep appreciation of the degree of skill required to do it well.

CHAPTER X

CONCLUSIONS AS TO QUALITY OF CURRICULUM AND SYLLABI OF THE KINDERGARTEN AND ELEMENTARY SCHOOL

I. THE KINDERGARTEN

THE want, at present, of a printed curriculum and syllabus that are actually followed in the kindergarten has made it impossible to discuss these subjects in detail as related to the kindergarten. But the curriculum followed, as seen on visits to various kindergartens, indicates that with partial exceptions the plan of study for that age of children is in substantial harmony with the standards set up. That curriculum, therefore, is a direct aid toward securing the kind of instruction that is desired.

2. THE ELEMENTARY SCHOOL

Source of Data for Conclusions

The data on which the following conclusions are based are principally the printed statements in the curriculum and syllabi. For a few subjects such printed matter is not at hand, or is partly out of date. The significance of occasional statements also has had to be determined by seeing how they were interpreted in practise. On these accounts we have occasionally gone beyond this source; but this printed matter, taken as it stands, reveals a very important plan of work, and it is mainly this published plan that furnishes the data for the following conclusions:

Provisions for Motive

In order that instruction may affect the hopes and purposes of pupils, the subject-matter must be intimately related to human interests and to the interests of the children in particular. It is difficult to attain this ideal; but every good curriculum shows efforts in this direction, with at least partial success here and there.

To what extent does the curriculum here discussed meet this requirement? It is necessarily met to a large degree in literature, for classic literature is called classic partly because it deals only with vital human problems. The course in cooking, also, largely meets this responsibility.

Outside of these two subjects the requirement is met in only a slight degree. There is no attempt, for example, to organize the subject-matter of geography about human problems. Nature study and elementary science do no better; both are approached from an encyclopedic and scientific point of view entirely. The grammar likewise shows the scientific standpoint only. The English history has almost no connection with present life. And the subjects of music, composition, sewing, drawing, shop work, physical education, and arithmetic place the emphasis plainly on technical efficiency. The courses are, in general, baldly abstract; and if they appeal to young people, it is due rather to accident than to any skilful provision for motive on the part of those who selected their subject-matter.

The seriousness of this neglect of motive for particular children is seen, for example, in the course for the seventh school year. That is a year in which the subject-matter should make a special appeal to the pupils, because great numbers of them now withdraw from school at the end of the sixth year or during the seventh. Yet we find the following subjects in the course: Constructive and inventional exercises that have little purpose, as a prominent part of arithmetic; constructive drawing unrelated to actual construction; shop work in which a series of models has

to be followed; elementary science patterned after college work and taught as a science; an outline of the entire history of England; and grammar taught as a science. One naturally suspects that such a course and truancy are closely related.

Attention to Relative Values — Judgment

As has been stated above, the only basis for judging the value of ideas is found in their relation to mankind; and, not showing an interest in the establishment of such a relation, the authors of the courses and syllabi may be expected to show carelessness in respect to values in their selections. And that is what has happened. A more superficial and static course than that in geography would be hard to find. The composition omits some of the most important factors in good composition. The arithmetic might omit nearly one fourth of its present matter to advantage. A few things in English history are needed, but only a small portion of that now covered. Neither sewing, nor drawing, nor shop work calls attention to the richer portion of the subject-matter in its field, technique alone being recommended. In brief, motive not being considered, many topics that have little worth are included and many others that are a very source of life are omitted.

Attention to Organization — Imagination and Reasoning

Organization has to do with the association of ideas. The indifference with which this association is treated is indicated by the neglect of correlation of studies with one another. There is practically no attempt to correlate history and geography; or history and civics; or geography and nature study; or nature study and hygiene; or literature and composition; or arithmetic and shop work; or shop work and drawing.

It can hardly be that the correlation of studies was entirely overlooked by the authors of the curriculum; it is

a topic that is too often discussed for that. Little value must have been attached to it.

This attitude indicates that the interrelation of ideas within each study will also receive scant attention. That is strikingly true of some of them, particularly of geography, history, and nature study. The underlying principles, or unifying ideas, of these subjects being largely omitted, they fall apart into detached facts, having the minimum amount of organization.

Several other subjects, especially music, shop work, sewing, arithmetic, and to a great extent elementary science, stand for a sequence that is technical or scientific. But organization beyond that, securing a careful grouping of facts, so that the broader and to the children more significant truths stand out clearly as the unifying ideas — that organization is largely wanting.

Expression of Individuality of Teachers and Pupils

In a certain school, which has six classes at the same point of advancement, exactly the same topics in each study are mapped out each week for all the pupils. Thus nearly 300 children are required to cover the same ground at the same rate, week after week. That indicates the prevailing attitude toward individuality in the city, an attitude to a great extent produced by the curriculum and syllabi.

Observe, first, what provision these two make for the individuality of children. In the composition work, instead of cautioning against too much reliance on imitation of other writers, imitation is really emphasized as the controlling idea. There is no warning given against too much concert work in music, although that is one of the prevailing errors. The sewing and shop work are so planned that dictation seems to the teachers in those fields to be the one necessary method in class. Throughout the curriculum and syllabi there is remarkably little reference to any need of adapting subject-matter to pupils; and there is almost no

reference to the importance of teaching children how to study alone, or to the best ways of doing it.

Consider next the teachers. In nearly every subject — at least in literature, history, geography, nature study, elementary science, composition, and arithmetic — the syllabus attempts to tell how any topic in that field should be taught. Instead of urging each teacher to adapt her method to individual conditions — including her own — there is a direct attempt to reduce the method in each study to a formula.

Of course, such formulæ cannot cover all cases and meet all needs. They are accordingly supplemented by suggestions. For instance, in history, throughout the sixth and seventh years, "No notes should be dictated by the teacher, nor should home study be required of pupils." First, in Grade 8A, "in history an earnest study of the text-book is recommended." Likewise, in beginning reading in Grade 1A, "the use of diacritical marks as a help to reading is optional."

Many of these suggestions are much needed, and probably the formulæ are often helpful; but it is their *source* that is here of special importance. Ordinarily class-room procedure is determined in a broad way by the working aims of instruction; in a more detailed way, by the principles of method, as drawn from psychology. But there is no attempt here to connect the details of class-room method with either the *aims* or the *principles* of instruction by basing these formulæ and suggestions upon them. There is usually no reference to aims and principles in the syllabi. The result is that these formulæ and suggestions find their basis in the authority of the Board of Superintendents, who issue them. For this reason they seem to the teachers very arbitrary — whether they were originally so or not — and although called "suggestions" in the syllabi, they have the effect of directions or requirements, since they are based on the authority of superior officers.

In remarking that there is usually no reference to aims

and principles in the syllabi, we do not overlook the fact that there is some discussion of these matters. For example, in the Introductory Note for geography, the intellectual purposes of geography are stated as follows:

"1. Geography may be made to train the observing powers.

"2. It may be made to train the imagination.

"3. Rightly taught, geography trains the memory.

"4. Geography should also be made, particularly during the last three years of the course, to train the reasoning powers. When you ask a child to classify the natural features of a country — rivers, for example — according to some common property, as navigability, or the products of a country, as necessities and luxuries; and still more when you ask him to generalize after he has classified, as for instance to determine the status of a people after a classification of their products, you are training him to reason."

But such statements as these are passed over because they are too general to have much influence on practise. One reason for reproducing them here is to show how little basis, beyond personal authority, the writers of the syllabi really had in mind. Incidentally, what is more discouraging for a teacher who is in close touch with modern educational thought than to find a course of study that she must follow prefaced by such academic and outworn statements as these?

There is another important fact concerning these formulæ and suggestions in the syllabi; i. e., there is usually only one solution offered for the mastery of any one kind of difficulty. For example, only one plan is proposed for the appreciative reading of a masterpiece of literature, and only one order of topics for the teaching of any country in geography. Likewise, only one suggestion is usually made for solving each class of minor problems. In composition for Grade 3A, for instance, we find the following:

"The pupils should construct statements from questions

or directions. The teacher and the pupils working together should construct paragraphs."

Of course, there might be several ways of getting pupils to construct statements and paragraphs. But apparently this method is the best; otherwise, presumably, others would have been suggested. And, by presenting it alone, the bad effects of the exercise of bad judgment by the teacher are avoided. Thus the teacher throughout all the syllabi is generally relieved from the danger involved in the exercise of choice.

We are forced to conclude, then, that the curriculum and syllabi not only make no provision for preserving and developing the individuality of the children, but that their influence tends somewhat in the opposite direction.

So far as the teachers are concerned the curriculum and syllabi are a positive help in the sense that every teacher must follow a course of study; there would be chaos in any school without one. But beyond that they directly curtail the teacher's freedom. In their general plan they refuse to trust the teacher by putting the aims and principles of instruction before her, clarified by illustrations, and by allowing her to weigh, select, and try. That is a necessary condition of growth for the teacher, to be sure; but growth with that risk would, it seems, be too dear. On the contrary, to the greatest extent possible, the teacher is told specifically what she shall do. What wonder, then, if the average teacher feels that she has little more to do than to *obey*?

Standards Actually Followed in the Present Curriculum and Syllabi

It is evident that the standards proposed by us for judging curriculum and syllabi have been largely ignored. In order that the situation may be more fully understood it is pertinent to ask, What standards were actually followed?

That question brings us back to the working theory of the elementary school that was stated to be an im-

portant factor in determining the quality of class-room instruction.

The influence of that theory upon the curriculum and syllabi should be noted. The first article — belief in the necessity of unlimited uniformity — explains why 650,000 children, representing all kinds of environment and ability, are given substantially the same curriculum, to be covered in the same time; why class-room method is reduced as far as possible to formulæ; why both these formulæ and the numerous other suggestions are based on personal authority rather than on the aims and principles of instruction; why, in brief, scarcely any attempt has been made here to provide for the individuality of either children or teachers.

The second article — the belief that the core of instruction consists in those facts and kinds of skill that are automatically usable — explains why the underlying principles and richer material in many of the subjects, such as geography, shop work, and music, have been neglected for the more formal portions.

The third article — the belief that the most desirable element in scholarship is accuracy in details — accounts for the remarkable lack of organization in the subject-matter. Details being, individually, the center of interest, the selection and association of details either by correlation of studies or by careful grouping of facts within each study becomes a negligible matter. The only phase of organization that has received much attention is that of sequence within particular studies; but that is confined to a few of the studies, and the sequence secured is one for adults (logical) rather than one for children (psychological).

The fourth article — the belief that the content of curricula should be selected with reference to the distant future — accounts for the want of subject-matter that appeals *now* to children, and therefore that affects their present conduct.

The curriculum and syllabi give little indication that

their authors have made a close study of present social life with the object of discovering the principal qualities that make one an effective participant in it. Nor do they give much indication that their authors have made a close study of children with the object of discovering those characteristics that must be used as the basis for growth. On the contrary, they contain much evidence that their authors are not much concerned with *growth*; that they are not interested in the development of children through the agency of teachers who are themselves developing; their point of view is static.

The most striking fact about the curriculum and syllabi is the want of educational leadership that they display. Barring a few exceptions they could both easily have appeared twenty years ago, in spite of the fact that the last twenty years have been years of remarkable educational progress, particularly in the field of elementary instruction.

Effect of the Curriculum and Syllabi on the Attitude of Teachers

The effect of the curriculum and syllabi on the feeling of freedom among teachers is easily traced. Since their judgment is appealed to or relied upon at hardly any point, they naturally reach the conclusion that there is no provision for their individuality in this printed matter, but that on the contrary they are distrusted and restrained by it. Of course, printed directions are not always followed. And it remains to see how the schools are supervised, before final conclusions can be reached as to the degree of freedom that the teachers actually enjoy in practise.

Effect of Curriculum and Syllabi on Instruction in the Elementary School

According to the by-laws of the Board of Education (paragraph 8, section 40) these syllabi outline the minimum curriculum, thus making it peculiarly binding; and

whether that regulation is fully enforced or not, they exert a great influence on the quality of instruction. Resting on so low a plane, their depressing effect on active-minded, progressive teachers is not easily overestimated. It would be next to impossible for a good teacher to present the course in geography for Grade 4B or 5A, as now outlined, in a way that would make the instruction even fairly satisfactory. And the same must be said of many other parts of the curriculum. So far, then, as their exclusive influence is concerned, the curriculum and the syllabi not only fail to inspire good teachers, or to encourage them by showing the relation of the aims and principles of education to subject-matter and method, but they directly limit them to low ideals.

Probably some of the leaders in the New York City system would admit that the present plan does take little cognizance of the good teacher; and they might defend it on the ground that the good teacher can look out for herself.

Consider then the young and the poor teachers. Educators must be optimistic enough to believe in the great capacity of such teachers to improve. In fact, there is no option about meeting that demand. The capacity of children to improve through instruction is assumed in the establishment of the school. And they cannot do this to a normal degree unless their teachers themselves are growing.

Assuming the capacity of the young and the poor teachers to grow, one of the first means to this end is that such extremely important documents as the curriculum and syllabi provide plainly for their growth. If we take such teachers where they are, and immediately direct them at every important turn, on the basis of mere authority, they will not even remain where they are; they will rather become less progressive and less happy from year to year. And, with several hundred teachers entering the system every year the time will soon come when the great majority will be unprogressive and discontented. That has neces-

sarily been the tendency, so far as this curriculum and these syllabi have exerted an influence.

In short, freedom to grow, and positive aids to growth, are necessary alike for all teachers, young or old, poor or good. But this curriculum and these syllabi have neither allowed this freedom nor furnished these aids, and in these facts we find at least a partial explanation of the poor quality of the teaching.

CHAPTER XI

RECOMMENDATIONS ¹

I. AS TO MINOR CHANGES

A LARGE number of minor changes are needed in the present curriculum. Many of these have already been clearly enough indicated in our discussion of the individual courses of study. Some of the more important, however, may be enumerated and more clearly explained here.

Technical Grammar

Technical grammar should not have a place as a separate study. Its time should be given over to literature and to composition, the latter including those facts from grammar that are directly useful in securing correct oral and written expression.

Nature Study

The course in nature study needs extensive reorganization in accordance with the suggestions made where that subject is under discussion (p. 106).

English History

English history should not be taught as a separate subject; but those topics that are necessary for the proper

¹ It must be understood that these recommendations are regarded by us as only a safe basis of experimentation for the progressive improvement of the curriculum. Such experimentation can be effective only when the results achieved are carefully observed and appraised for a sufficient period of time. There is no other way known to us of testing the validity of such standards as we have set up, or of their efficacy in practise.

comprehension of United States history should be taught, in connection with the latter.

Arithmetic

A considerable part of the present course in arithmetic should be omitted. During the first six years, the fundamental operations—addition, subtraction, multiplication, and division of whole numbers and simple fractions, both common and decimal, should be emphasized, together with percentage and its simplest applications to interest and trade discount.

In those years the effort should be made to secure accuracy and a reasonable degree of facility. During the last two years the time devoted to arithmetic should be reduced from five forty-minute periods to not more than three forty-minute periods per week. The first object of the instruction should be to bring the pupils to the degree of efficiency in the fundamental operations proposed by Mr. Courtis.

Beyond that, the time should be devoted to the applications of arithmetic, such as are needed in connection with geography, history, civics, and other subjects. The arithmetic for the higher grades has not yet fulfilled its function. Geography locates leading industries, and gives reasons for the location; history, civics, and other subjects offer other facts about such topics as the above; but what a great railroad system really is can be understood only when one comes to understand how many men it employs, what income they receive, how long they have to work, how many are killed per year, what quantities of goods are transported, how much capital is invested, what profit the stock brings, etc. Likewise, one must know the quantities involved, in order to appreciate what a war ship means, what a farmer does, what a mine is. The principal purpose of this portion of the arithmetic should be, not to teach processes, but to identify the pupil, in knowledge and interest, with his business environment; or, perhaps better,

with his environment on the quantitative side; just as literature identifies him with the moral and esthetic elements of his environment, and fine art with his esthetic environment.

Correlation of Studies

An extensive rearrangement of the curriculum is necessary in order to establish a fuller correlation among the studies.

Course for the Seventh Grade

The work of the seventh year in particular is greatly in need of enrichment. In order to accomplish that object, most of the studies for that year need serious modification, as briefly suggested in connection with the discussion of these particular subjects under "Curriculum and Syllabi."¹

2. ADJUSTMENT OF THE CURRICULUM TO INDIVIDUAL SCHOOLS

The leading question, however, concerns the uniform curriculum for all the schools. That is already a pressing question with reference to the seventh and eighth grades, inasmuch as there is much demand for the establishment of intermediate schools for children of those grades, in which different courses shall be offered.²

Take a simple situation. In a certain city there are two schools under one management. Heretofore the officers of each school, i. e., principal and teachers, have taken the initiative in preparing its curriculum and have done most of the work. Having their eyes on the particular children concerned, each group has made a course under the influence of their own experience. And, as might be expected, the curricula of the two schools are unlike in many particulars. The subject-matter, being reasonably adapted to

¹ See also Dr. Bachman's discussion of the elementary school course of study in his reports on Promotions and Non-promotions and on The Intermediate School.

² See Intermediate Schools.

the pupils in quality and amount, and there being no necessity of keeping pace with an army of other children, little complaint about overcrowding is heard in either school.

What would be the effects if the two schools were required to follow the same curriculum? In a striking way the principle of adapting subject-matter to particular children would be abandoned; the individuality of the teachers would be ignored, with many evil consequences; and the way would be paved for complaints about overcrowding and the opposite.

A general misfit would appear. The following statement seems, then, to be worthy of ranking as a principle in the making of a curriculum; namely, it should be planned on the basis of the particular children to whom it is to be taught, as that basis is interpreted by those who know the children best. Changes may be effected by higher authority, but the teachers and principal should take the initiative and do the main work.

The differences among the hundreds of elementary schools in New York City are much more striking than those between the two schools mentioned. Keeping this fact in mind, and also the principle just stated, we propose the gradual adoption of the following plan for this city:

The principal and teachers of a school in one of the crowded sections of the East Side, assisted by the best talent among the superintendents, shall plan a curriculum for that particular school. In this way, all the inhabitants of the city might be shown what one good curriculum is. Since the upper West Side contains a very different kind of population, a curriculum for a particular school there might be planned in a similar manner. Thus a second curriculum might be secured, adapted to a particular situation. For a certain school in The Bronx, representing a third type of environment and of pupils, a curriculum might be prepared under like conditions; and a fourth, fifth, and others might follow, according to the number of somewhat distinctive types of schools in the entire city.

With the help of these curricula principals and teachers of other schools might take the initiative in preparing curricula for their own schools. If they lacked ability, or energy, or power to coöperate with one another, or all these together, they could at least adopt outright one of the several types already developed that most nearly fitted their own conditions. In that case they would probably get a much better fit than that which they now have.

On the other hand, if they possessed ability, energy, and power to coöperate, they might modify one of the curricula in a way that would adapt it more fully to their own conditions — with the very important responsibility of having to defend and perhaps abandon such modifications, if their district superintendent opposed them forcibly. The result of such a plan would be that the curricula would be far more carefully fitted to the needs of pupils throughout the city, and that the teachers, exercising initiative more fully, would be more active-minded and progressive, more effective as teachers, and happier.

According to the plan that is actually followed now, one curriculum is made out, without reference to any particular school, with the hope that it will fit all and with the knowledge that it will fit none. There are glaring misfits on every hand. In spite of the fact that nature study and home geography should vary greatly according to environment, and ought to vary more, according to the ability of the teacher, only one course is offered to all. In spite of the fact that four fifths of the children in some schools hear only a foreign language at home, while few in other schools hear anything but English, all are expected to spend approximately the same time in the study of English. And of course there must be overcrowding for some tens of thousands, and not enough work for other tens, while all suffer more or less.

All this would not be so bad if it did not carry another thing with it that is worse. That is, that such open and utter lack of adjustment to individual conditions, in a thing

so vital to the entire educational system as the curriculum, destroys the principle of adjustment to individual conditions in general; indeed, it advertises the principle of non-adjustment. Minor offenses against adaptation to particular circumstances — such as poor method might commit — seem trivial, after seeing the principle authoritatively ignored in a curriculum issued by the Board of Superintendents. If those who select the subject-matter thus disregard local conditions, why should not the teacher? Then, why should not all topics be taught alike? Why should not all children be treated alike and held for the same results? Why should there even be any individuality in the appearance of the school rooms? (Primary school rooms are strikingly distinguished from kindergarten rooms now by absence of growing plants, pets, and other home-like attractions.) Thus the key to the excessive uniformity prevailing in the elementary schools is found in the uniform curriculum. There can never be excellent instruction here, so long as the very definition of good instruction is nullified in a thing so prominent as the curriculum.

We are keenly aware that there are many phases of this question that cannot be touched upon here. But one other consideration must be added. The assertion is sure to be heard that uniformity is necessary for administrative purposes. That depends upon what administration is for. If its object is to help secure good instruction, then it is to be condemned if it does not accomplish that end. And, provision for the individuality of pupils and teachers being one of the very standards by which the character of administration must be tested, one of the first duties of the administrators of schools is to overcome the tendency toward uniformity, rather than to establish it. Further, if the proposed plan — touching the curriculum — is unsatisfactory to the superintendents of the city, then the task awaits them of proposing another that has the same purpose but is more effective.

3. CHARACTER OF THE SYLLABI

The syllabi, as now printed, accomplish two things in the main; i. e., they amplify the very brief statements contained in the curriculum proper, and they offer directions and suggestions to teachers about method. In brief, they inform merely.

Their purpose seems too narrowly conceived. What they thus present to teachers is in danger of lacking significance, like much of what they recommend that teachers shall present to children. It is fair to expect that leaders in a great system of education will offer their suggestions to teachers in a way that regards teaching as a profession, and hence stimulates and encourages. The information given should be subordinated to the uplift furnished.

To this end, the main working aims and principles of instruction, that control selection of subject-matter and method, should be stated. It seems reasonable to assume that, if there are any persons who ought to understand and hold the aims and principles of teaching in mind, it is those persons who are doing the teaching.

These aims and principles should be so worded and illustrated that their direct influence on practise will be made clear; and the impossibility of there being, in most cases, one fixed and best method of treating details will be established. This will involve an appeal to the teacher's judgment in selection of methods. In this way syllabi might give necessary information while surrounding the teacher with an atmosphere of freedom and inspiring her by their breadth of thought.

Supervision

CHAPTER XII

STANDARD FOR JUDGING QUALITY OF SUPERVISION

RELATION OF PRINCIPAL TO AIMS OF THE SCHOOL

THE principal, as head of the school, necessarily stands for the aims which the school stands for. The relative importance of these aims must be the same for him as for the teachers, and others charged with their accomplishment. He is merely the leader in bringing them to completion. (A somewhat detailed discussion of these aims is included in Part I of this report, treating standards for judging the quality of class-room instruction in the elementary school, Chapter II.)

HIS TWO KINDS OF DUTIES, AND THEIR RELATION TO EACH OTHER

Two kinds of duties whose relation to each other is of the highest significance confront him from the start. On the one hand, he has to look after the condition of the building, the janitor's service, supplies, and fire drills; to consult with parents and children about tardiness, truancy, other misconduct, and health of pupils; and to advise the teachers about these same things, together with the lighting of rooms, adjustment of seats, care of desks, and books. On the other hand, he is responsible for such an organization of the school as will secure a high moral tone, for such assistance to teachers as will place the instruction on a high plane. In other words, there is a very large class of duties, largely mechanical, that belong to the general

manager and business man in distinction from the educator. There is another large class, dealing with instruction and the formation of good habits, that are technical in character, calling for skill as an educator. Not all of the principal's duties fall easily in one or the other of these two groups, but in the main the distinction is valid.

Which of these two shall dominate the other and occupy the greater portion of his time, is one of the first questions to consider in judging the efficiency of a principal. If he is primarily a business manager, he should be judged as such. If he is primarily a professional leader, he should be judged very differently. The purpose of the school leaves no doubt about the proper decision of this question, for it makes the business management of a school only a prerequisite to its other more important work of education. Proper attention to physical conditions, and to numerous other details of general management, secures only the conditions on which effective instruction and government depend; and it is, therefore, merely a means, while the latter are the ends. A principal of a school must be closely identified with instruction; and he must be judged primarily as a leader in that field, i. e., as a supervisor of instruction.

DEPENDENCE OF PRINCIPAL ON HIS TEACHERS

With a large school under his control, the principal can accomplish comparatively little alone. In organizing the school so that the active interest of children is enlisted in favor of good order and uplifting conditions, he is directly dependent upon his teachers; and in presenting ideas so that they shall exert a strong influence on pupils, he must likewise work almost entirely through his teachers. His main relationship as an educational leader, therefore, is to his teachers, and the influence that he exerts upon them in kind and degree is the chief measure of his worth to the school.

ON JUDGING EFFICIENCY OF A PRINCIPAL'S SUPERVISION

The leading factors in effective class-room instruction have already been enumerated (Chapter II). According to that enumeration, one of the great duties of the teacher is to inspire her pupils to do specific things that are worth while. Of course, the only condition under which this can be accomplished is that the teacher herself be filled with purpose. She must hold the ultimate objects of her instruction in mind continually, and must comprehend the specific purposes of large topics that she is presenting, as well as their relation to those aims that are more distant. Her own enthusiasm and her insight into the relation of the curriculum to active living will greatly affect her influence on the motives of her pupils. One great function of the principal, therefore, is to contribute to her enthusiasm and to this insight.

We have seen that the teacher should accustom pupils to a careful organization of ideas, for the sake of clearness and force. Of course, her own ideas should exhibit these qualities plainly, in the field of both subject-matter and method. This is by no means easy; and, therefore, a second duty of the principal is to aid her actively in this whole matter, showing her often how she has failed to secure good organization, and how the failure might have been avoided.

A third task of the class-room teacher is to lead children to weigh the relative values of facts, until considerations of value become as prominent in their intellectual work as in the business world. Of course the teacher must herself be constantly alive to varying worths. Otherwise, she will overlook the whole matter in order to accomplish this object.

A third responsibility of the principal, therefore, is to instil in the teacher the conviction that he is ever on the lookout for this quality in his observation of her instruc-

tion, and to advise with her frequently about methods of improvement in this direction.

Finally, the teacher is responsible for inculcating a spirit of independence among her pupils, so that they will subordinate the subject-matter of instruction to themselves; so that they will think their own thoughts, in their own way; so that they will take the initiative often, and practise self-reliance in other ways also. The teacher cannot do this, cannot secure self-expression, unless she herself is practising it; unless she is clearly conscious of her own freedom to say and do what she sincerely believes in. It is the duty of the principal, therefore, to surround the teacher with such an atmosphere as will encourage her to think her own thoughts and to express them frankly, i. e., to be her normal self; also to impress upon her that he is ever watchful of her provision for self-expression among her pupils.

In brief, the principal, as a professional leader, is working for the same ends as the class-room teacher, but his pupils are the teachers themselves. His worth is to be judged primarily by his skill as a leader, as a teacher of teachers, just as theirs is to be judged by their skill as teachers of children. Thus his first duty is to his teachers, to help them grow professionally.

In the performance of this duty he is subject to all the principles of method to which they are subject, and should illustrate them continually in his contact with them. For that reason he cannot be merely a judge of instruction, an inspector, for as such he only passes upon the quality of a teacher's work, without aiding her greatly to improve. Nor can he be a dictator, merely giving her directions about what to do, for as such he emphasizes obedience in intellectual matters, and thus puts restraint about her, while it is his duty to make her feel free. He is prevented from assuming these relations to his teachers for the same reasons that they are prevented from assuming them toward their pupils. His general relation to his teachers, therefore, is

that of an adviser, basing his advice on reason and granting their right to modify or, for good reasons, to reject it. This relationship is especially worthy of emphasis in a great system of schools, where uniformity in matters not pertaining to instruction is of the highest importance.

With the attitude of an adviser, he must prove helpful to his teachers by connecting the details of their class-room instruction with the aims and principles of education. To the extent that he can do this, and according to the spirit in which he does it, he is efficient as an educational leader or supervisor.

CHAPTER XIII

APPLICATION OF THIS STANDARD

PROPORTION OF TIME SPENT IN SUPERVISION

IN October, 1911, we sent a questionnaire to eighty-three elementary school principals, one of the questions touching upon the proportion of time spent by the principal on administration and on supervision. Thirty-two of the replies, taken at random from Brooklyn, Manhattan, and The Bronx, show an average of approximately two thirds of the entire school time spent in administrative duties, as distinguished from the work of supervision.

CHARACTER OF THE SUPERVISION

I. AS LEARNED BY OBSERVATION, AND BY INTERVIEWS WITH PRINCIPALS

Let us now consider the character of the supervision that takes place. The principals have uniformly responded very readily to our requests for information about their work. One of the requests was the privilege of accompanying the principal as he supervised, and listening to any remarks that he made, either to the teacher before her class, or to her class in her presence, or to the teacher in private after her class was dismissed. Many extremely interesting observations were thus made, and while it should be borne in mind that there are exceptions to many of the statements immediately following, possibly to every one, the facts collected indicate the prevalence of the following four practises:

a. The time spent by a principal with any one teacher, on any one occasion, is extremely small. For example, one principal, when asked what his plan of supervision was, replied: "I am busy with administrative matters from 9 till 10.30 A. M. Then I regularly spend one hour in supervision." "What do you do?" was asked. "I make the rounds, visiting each room." "How many rooms have you?" "Fifty-two," was the reply. Many principals thus plan to "make the rounds" every day, spending a minute or two in each room, occupying at least half of their entire time for supervision in this way.

Invariably, when the principal was asked to allow the visitor to accompany him on his tour of supervision, the principal was requested to follow his usual plan and remain as long in any one room as he ordinarily would. In this way, often five, six, and seven rooms in one school were visited. Taking all the visits together, the average time was probably not over six minutes. Very seldom did any principal care to remain longer than ten minutes with one teacher.

b. Although the principal was asked to allow the visitor to hear any remarks that he might make to any teacher, as a rule no remarks were made. One principal stated, in starting out, "Of course I shall not say anything unless something is going wrong," and nothing proved to be going wrong. Almost every principal was plainly welcome in each room, as judged by the attitude of teacher and pupils, and he usually seemed in sympathy with the instruction; but silence was his rule. Of course some, and perhaps much, of this quiet may have been due to the presence of a visitor.

c. Naturally, most of the remarks that were made were offered in the privacy of the principal's office. One striking characteristic of those interviews with individual teachers was, again, their shortness. They seldom lasted more than three or four minutes.

d. The final fact of interest was the content of the re-

marks. Most of the principals showed great tact in freeing the teachers from embarrassment. But usually the principal had set aside no time for special preparation for the interview; and he apparently felt no need of special study for it, since he made no request for time for reflection. What was said, therefore, touched only such matters as came at first thought; the points were necessarily few in number, they were introduced without much reference to organization, and they received no fundamental treatment. There was usually no sign that any particular question was being followed up in the various grades or with a particular teacher. Also the conviction seemed to be common that on account of the large number of teachers only a few minutes should be spent in conference with any one teacher.

2. AS LEARNED THROUGH REPORTS FROM TEACHERS

Altogether, not less than one hundred teachers, representing all parts of the city, have, in ways that have been of service to us, expressed their opinion about the helpfulness of the principals' supervision. Many of these teachers have known at the time that their statements were to be used; many others have been entirely unconscious of the fact. Much care has been used to secure as extensive and representative an expression of opinion as possible.

Statements Concerning Individual Help Received

One teacher of an 8B class, when asked to what extent he had received helpful suggestions from higher authorities, replied, "No help at all." He had been nearly thirty years in the system. Another teacher, who had been asked four or five questions by the visitor about his plan of work, when asked the further question, "How often and how long has any principal or superintendent discussed your instruction with you, either its method or the selection of subject-matter?" replied, "Practically not at all." Then

he added, "You have shown more curiosity, and have quizzed me and talked with me longer, than have all the principals and superintendents in my twenty-one years of experience in the New York system."

Of fourteen teachers who were asked by one visitor, "What positive help do you receive from your principal?" thirteen replied, "No definite help." One said that she had received positive help, but could give no example. Most of them expressed surprise that a question should be asked so foreign to their experience. Some stated that their principal *could* help them if he had more time.

One teacher said: "My principal visits me, perhaps, one half-hour per term. But we have no discussion together, and he gives practically no criticisms. My former principal was more helpful; he gave model lessons." One teacher, who has been seven years in the system, stated that he had never received any real criticism from any higher officer. In one school, several teachers together agreed that, "No one ever discusses methods with us, with the view of stimulating and helping."

It is unnecessary to reproduce other replies here, since they are of the same general nature.

Statements Concerning Conferences of Teachers Held by Principals

Since many superintendents of schools, perhaps, exert their main influence upon their teachers through teachers' meetings, it is important to consider the value of such meetings held by principals.

The conferences to which teachers are called, say very many teachers, are not conferences at all. They are meetings in which the principal offers a list of directions, or orders, usually about routine matters, but sometimes about the more serious aspects of instruction. On such occasions there is usually no general discussion—not even an attempt at discussion. Frequently, when a teacher has been asked by a visitor if she felt free to disagree with her

principal and debate a question, she has smiled and replied, "No, it would not be wise." Indeed, it is common for teachers to declare that mental independence and insubordination are considered as practically synonymous throughout the system; hence fear of punishment by a low mark — such as a C, that very seriously checks promotion — prevents freedom of expression.

On the other hand, there are principals here and there who certainly have admirable plans for teachers' meetings. For example, one principal selects one of his best teachers as a grade leader in each grade. He meets this group of leaders oftener in conference than the other teachers, but all meet for real discussion frequently. Another principal has the habit of making his first approach to the discussion of a principle of education in conference with all his teachers, and he often makes it entirely apart from the work of any particular teacher, because he thinks that his older teachers — with their fixed habits and prejudices — can be more easily reached in this impersonal way.

But in general the teachers who have been interviewed with regard to the nature of principals' conferences are agreed that instruction occupies a very small place in them, that discussion in them is rare, and that they depress rather than stimulate the teachers.

CHAPTER XIV

FACTS INDICATING THAT THESE CONDITIONS ARE REPRESENTATIVE OF THE CITY AT LARGE

THE preceding statements are the results of reports from observations and interviews with a small minority of the entire teaching force in the city. Taken alone, therefore, they cannot be regarded as sufficient basis for general conclusions in regard to the supervision by principals. What other facts can be offered, that tend either to support these statements or to disprove them? There are several.

I. PROMINENCE OF ADMINISTRATIVE DUTIES OF PRINCIPALS AND ITS EFFECT

The first facts bear on the prominence of administrative duties of principals. As already stated, it is probable that two thirds of all the time and energy of principals is devoted to these duties especially. In a city growing as rapidly as Greater New York there is temptation to spend all one's efforts in this direction; and unless one clearly distinguishes between the two kinds of work, administration and supervision, and energetically subordinates the one to the other, the temptation will not be overcome. Reports received from principals themselves (referred to on page 180) show that some of them attempt no distinction between these two classes of duties. If, then, they do whatever at the time seems most pressing, they are almost sure to exhaust themselves in the details of administration.

But many principals who make some distinction here, and who greatly desire to identify themselves extensively with instruction, admit that it is impossible to do so, owing to the more immediate pressure of other tasks. Every principal, for example, is held directly responsible for the correctness of all reports that issue from his school. Even in signing the salary sheet, he must certify that none of the regulations, by-laws, etc., has been violated or that all violations have been reported. He must report on the condition of the building, on heating, ventilation, cleanliness, repairs, seating, lighting, fire drills; must make out estimates of supplies needed, must see to their distribution and adjustment; must interview parents; must know absentees and follow up cases of truancy, and attend to other cases of misconduct. Besides all this, he must see to the execution of a large number of directions from higher school authorities. He must attend to all these matters and more, quite apart from those pertaining directly to instruction. Further, his efficiency as a principal, he believes, is likely to be judged by his superior officers primarily by his promptness and accuracy in regard to these more mechanical but tangible matters; for that reason he is almost compelled to consume his energies in things external to instruction.

2. GREAT SIZE OF MANY SCHOOLS AND ITS EFFECT

The large size of many of the schools — some having between 4,000 and 5,000 children — greatly intensifies this difficulty. The principals interviewed have expressed themselves almost unanimously as to the proper size, maintaining that a school should number only so many teachers as the personal acquaintance and influence of the principal can effectively reach; and the outside limit is about thirty, with 1,500 children. Many would much prefer to limit the number of children to 1,000.

This is a very serious matter; for the larger the school,

the greater the pressure on the principal to do solely administrative work. The furnishing of assistant principals, one to every twenty teachers or so, beyond twenty-eight, is by no means a remedy for this evil. One reason is that many of these assistant principals are spending most of their time in clerical or other routine work. Being assistants, under the direction of the principal, they assist him in doing the work that is most pressing upon him. There is great waste of money at this point, in allowing assistant principals to do work at two to three times the rate of pay that the work itself is worth.

But a deeper reason for the failure of a plan which assumes that assistant principals can do the work of a principal, is that active supervision of instruction is something that cannot be easily delegated. While the criticism of instruction, whether positive or negative, should be based on technical reasons rather than on authority, it constantly involves personal relations; it often severely tests temper, as well as respect for ability. It is the most natural thing in the world for a teacher who is adversely criticized to question the fitness of an assistant to act as critic, when, if that same assistant were principal in full charge, there would be no question. A teacher, therefore, may be inclined to appeal over the head of the assistant to the principal himself, to settle a disagreement, or at least to show disrespect for an assistant. This tendency necessarily makes the assistant principal very wary about offering any negative criticism, and some omit it entirely on that account. It should be remembered, too, that almost every assistant principal is looking forward to a principalship — an ambition that is laudable, but one that does not tend to eliminate friction between the principal and an assistant.

Further, the very attitude of supervisors toward education is affected by the size of a school. If a school is small enough to allow personal relations to prevail, it seems reasonable to strive toward recognition of the individuality of both teachers and pupils. But let the number of pupils

rise into thousands, and it begins to seem hopeless to make provision for the individual qualities of any boy. The larger the school, the more nearly the factory system is approached. The absolute necessity of mass action in external matters is self-evident, and that spirit is carried over directly into the instruction itself. Thus, the very ideals of supervisors — both as to the characteristics of good instruction, and as to what they themselves shall stand for with their teachers — are seriously affected by the size of the schools.

In brief, supervision of instruction in the smaller schools is largely crowded out by administrative duties, and in larger schools supervision is necessarily even less efficient.

3. LACK OF AUTHORITY AMONG PRINCIPALS AND EFFECT

Remembering that much less than half of the time and energy of principals goes to supervision, nominally the main thing, let us consider the degree of freedom that a principal enjoys to do what he believes to be needed in school, so far as he has time.

1. Lack of Authority as to Lines of Study

The separate lines of work, called studies, that are pursued in each grade, are determined by the Board of Superintendents. Aside from one slight option in the eighth grade, the principal has no authority in this matter.

2. Lack of Authority as to Content of Each Branch Study

What the subject-matter shall be, in each subject, is determined for him. Section 40 (paragraph 8) of the laws of the Board of Education declares that "The Board of Superintendents shall, from time to time, issue syllabi in the various branches taught, which shall be regarded

the minimum amount of work required in such branches." At the beginning of the course in mathematics is the statement that "Both the course of study and the syllabus provide for minimum requirements." While most of the other courses and syllabi contain no such specific statement, and some of the branches, beyond question, contain too much subject-matter to be followed closely, the general understanding, as stated to us both by principals and teachers, is that the above by-law is to be obeyed as nearly as possible. In other words, the principal has practically no authority as to the content of the various subjects in the curriculum.

3. Lack of Authority as to Amount of Time for Each Study

The number of minutes per week to be devoted to each subject of study is also largely fixed for the principal by the Board of Superintendents. Where there is likely to be some doubt about how the time should be divided, in case a subject is not taught every day, even the exact length of each period of recitation is also fixed. For example, in the seventh year there are 120 minutes per week allowed for geography, and this must be divided into *three* periods. Some of the superintendents have stated that the principal is given great freedom in time allotment for studies, owing to the number of minutes per week set aside for "study and unassigned time." There is such a provision, and the maximum amount per week of such time, for any one grade, is 235 minutes in the seventh year. But, in all grades above the third, thirty minutes of this time per day, or 150 per week, is set aside by the superintendents for study of such subjects as require preparation. That leaves 85 minutes per week, or 17 per day, as the maximum amount in these five grades that can freely be assigned by the principal. The amount allowed in the first three grades ranges from 35 to 42 minutes per day. Thus, it is seen that the prin-

cipal is given only a slight degree of freedom in allotting time to the several branches of study.

4. *Lack of Authority as to Method of Teaching*

The two topics dealt with in the various syllabi are subject-matter and method, the latter occupying probably somewhat more than half the space.

In treating of method for the benefit of teachers one feasible plan is to state those aims and principles that most directly influence method, and then to show their influence by means of illustrations. In this way the controlling factors in the presentation of ideas are made clear, while the teachers are left entirely free as to details. There is little suggestion of this kind of procedure in the New York City syllabi.

Another plan that still allows much freedom is to omit reference to aims and principles, but to present several ways of treating a topic, from among which teachers may choose what most appeals to them. In this way teachers are likely to get glimpses of controlling aims and principles, even though these are not definitely stated; and while receiving some guidance they are left free from narrow restraint. That is not the plan followed in the New York City syllabi.

A third plan is to omit reference to aims and principles, and to offer only one way of presenting a topic, with the strong suggestion that that way be followed. That fails utterly to dignify teaching, to be sure, and limits the teachers very narrowly. But that is the plan essentially followed throughout the New York City syllabi.

One important standard for judging excellence in the method of teaching a topic is found in the extent to which the presentation is affected by the particular conditions in a given class. Yet such a standard is conspicuously absent from these syllabi. In providing the same curriculum for all schools of the city, practically without suggestion of variation for particular conditions, the school authorities

have, as far as they well could, abandoned all idea of adaptation to individual circumstances. In the syllabi dealing with method the same spirit is in control, for a strikingly prevalent desire is shown there to have particular topics taught the same way in all the schools. For example, there is a general plan consisting of three steps, "for the appreciative reading of a masterpiece" in literature; another plan, consisting of three steps, in composition, "for a study of a specimen of narration, description, exposition, and familiar letters selected from literature"; another plan consisting of eight steps in geography, for "studying a country"; and another in arithmetic consisting of eight steps, for "learning the combinations of each table." Why there should be this uniformity is not discussed, but that the desire for it is strong is evident.

It should be remembered that these plans are only "suggested," not required, in the syllabi, and the idea that particular procedures are "required" is distinctly disclaimed in some places. But in the majority of cases where specific directions are given, the word *should* is used; for example, in history, in the sixth and seventh years, the syllabus states that "No notes should be dictated by the teacher, nor should home study be required of pupils." In a few places, too, in the midst of such directions, a given method is declared to be "optional," which makes one question the optional character of the others.

The degree of restraint placed upon teachers by these specific directions depends upon how seriously the teachers interpret them. The testimony of principals and teachers and our own observation justify the assertion that the teachers, as a body, have learned to take them quite seriously. It is evident, therefore, that in the field of method, as well as in adaptations of the curriculum, the efforts of principals are forestalled by the syllabi. The main points in method are already determined for them when they take charge of their schools.

5. Diminished Authority Due to District Superintendents and Special Supervisors

Diminished authority among principals, owing to the relation that district superintendents bear to them, is another matter of importance. First of all, it should be remembered that the district superintendent rates the principals under him each year, and that such rating is an influential factor in the principal's promotion in position and salary. The principal is thus directly subject to the district superintendent.

Meanwhile, the district superintendent is directly related to the teachers themselves. He is required to rate them, also, each year, and his rating is a very influential factor in their promotion. He does not necessarily reach the teachers through the principals; in fact, he very often dictates to them about method directly. In addition, when teachers are dissatisfied with a principal's ruling, they can appeal over the principal's head to the district superintendent.

The effect of this situation upon the teachers is very definite; i. e., they are inclined to look to the district superintendent, rather than to the principal, as their head, so that the real center of gravity of the school is placed entirely outside of the school itself.

For example, here and there principals are found who do not believe in having teachers keep Plan and Progress books, i. e., plans of work, and records of work accomplished. But if a given district superintendent requires them, they must be kept by the teachers. Again, here and there are principals who are opposed to one fixed plan of teaching all countries in geography, or all classic selections in literature. But if the district superintendent is known to expect such plans, the teachers feel the necessity of obeying. In that case the principal may also yield, for one of his duties is to protect his teachers against the mark C from the district superintendent. Occasionally, a principal has admitted that he helps his teachers, as far as he can

— against his own convictions of what is sound — to prepare the children for the exact kind of test that the district superintendent is known to give. During the time not required for that, he attempts a very different kind of work with his teachers, in accordance with his own ideas. Thus the syllabi touching method are seen to be binding on principals as well as on teachers.

The requirements of the district superintendent are by no means confined to the statements in the syllabi. The occasional conferences that the district superintendents hold, whether of principals or teachers, occupy the time mainly with directions about routine matters, or with the more mechanical phases of instruction. But even when the vital factors of instruction are treated, the superintendent's method is usually the same, i. e., desired changes are dictated that presuppose obedience on the part of all concerned, rather than scrutiny and discussion. Thus it is seen that not only is there a lack of real educational leadership on the part of the district superintendents, but an influence is exerted by them that seriously limits the freedom of the principals.

The principal's helplessness is, perhaps, most evident in his relation to special supervisors. In a certain third grade the regular teacher was holding a recitation in music, in which the entire time was occupied with drill upon certain notes. When asked why she so emphasized the technique, she replied that she did not believe in it, but that there were twenty cards with notes that the pupils were expected to master in her grade, and that this work consumed all the time. Later, the principal, in talking over the music, likewise opposed the plan, but stated that he was powerless to modify it. So here was a situation in which the principal and the regular class teacher, who were primarily responsible for the welfare of those children, were following a plan to which both were opposed. That is not unusual. It would seem reasonable that a principal, as the head of a school and as the representative of the principles of gen-

eral method, would be given an active voice in the control of the method of each subject taught in his school. This is especially important because of the well-known fact that persons specializing in particular subjects so often have little acquaintance with the broader aspects of education, and on that account overlook many of the larger principles that should govern their own work.

One would think that the principals of the elementary schools, approximately 500 in number, could, by combining, exert a powerful influence upon their own status and the entire educational situation. But there is no established avenue of approach to the school authorities that are over them. In their meetings, from time to time, they have reached conclusions and sent in recommendations to these higher authorities, but usually without result and very often without recognition. This has happened so often that in a recent meeting of principals, consisting of sixty to seventy-five persons, the following statement was almost unanimously agreed to as representing their view of their relation to the authorities over them:

“The impression has been created among principals that individual principals, who have been so fortunate as to seem to have done some notably effective work, might hope for recognition or even consultation; but that any body of opinion formed at a conference of principals is not to be encouraged.”

On account of the power of the district superintendent over the schools, some of the principals assert outright that, instead of being the primary authority in their schools, they are merely agents of the district superintendents; and many of the principals feel a very serious lack of freedom on account of this influence.

4. THE FREQUENCY AND MANNER OF THE RATING OF TEACHERS, AND EFFECTS

One of the by-laws of the Board of Education (section 41, paragraph 10) requires that the district superintendent rate every teacher in his district at least once per year. This rating forms a very important part of the basis for judging the excellence of a teacher and, consequently, her right to promotion. Since a district superintendent, on the average, has charge of about 700 teachers, it is evident that he must spend a large part of his time merely in *judging* teachers; he becomes, thereby, an inspector rather than a supervisor, trying to discover what is, rather than endeavoring to improve it. Ordinarily there is no understanding that he visits teachers in order to help them. It is very common to hear teachers say that they have never known of a case where a district superintendent talked over a teacher's instruction with her in order to help her. And since he can spend only a few minutes with any one teacher, the impression that he receives in that short time becomes a matter of great moment. Commonly, when he enters a building, word of his arrival is passed rapidly about, and the one absolute requirement, as the teachers state it, is that the recitation shall go "dead smooth" in his presence. The reason for rehearsing these facts here is to show that the prominence thus given to the rating of teachers tends strongly to focus the attention of the entire staff of teachers upon it, so that it is difficult for the principal to interest them actively in phases of instruction not concerned with such rating.

Next, observe the basis of the rating.

Each teacher is supposedly marked for renewal of license on a list of seventeen points, which on that account exert a marked influence on the quality of instruction; the list used for later promotion of teachers is almost exactly the same, with a few additional points.

The seventeen points are as follows:

1. Ability to comprehend instructions.
2. Ability to coöperate with other teachers.
3. Skill in blackboard work.
4. Skill in questioning.
5. Skill in presentation.
6. Use of objective illustration.
7. Power to interest.
8. Thoroughness of drill.
9. Self-control and manners.
10. Use of English language.
11. Use of voice.
12. Attendance.
13. Punctuality.
14. Personal tidiness.
15. Accuracy in keeping records and making reports.
16. Control of class.
17. Energy and success in self-improvement.

The first important fact about this list is the things that it does *not* include. For example, if a teacher has established a close personal relation with her pupils, that merit finds no direct recognition in this list. If she is working with them individually to an unusual degree, or is especially successful in developing their self-reliance, or is distributing the work unusually well among them, or is leading them to appreciate the relative values of facts carefully; or if she is herself organizing the subject-matter with care, or showing rare originality or enthusiasm, no one of these points has a definite place in this list. To excel in these respects, therefore, does not plainly count, while excellence on the listed points does count. Naturally, then, since all teachers must be marked on the same basis, it becomes advisable for them to follow the list closely. The important fact again, concerning supervision, is that this list largely determines the prevailing characteristics of instruction, whether the principal so desires or not.

Here, then, is a plan according to which a marking system is made very prominent and the basis on which marks are given is made extremely narrow. The effect upon supervision by the principal is that he must sympathize with the teachers in their attention to these tests — or be out of touch with them — and, with his eye on this list of points for marking, he must, in the main, limit his efforts to its scope.

Yet the greatest evil in the general plan is hardly the excessive prominence of tests — although one must ask why they should be so prominent, when they certainly are not a help to teachers and when a large portion of the teachers in many a school are not in a given year in line for renewal of license or for promotion during that year.

Nor is the principal evil found in the fact that the list of points on which teachers are marked is merely incomplete. A list could never be made to include all elements of good instruction, unless it became so long that it would cease entirely to be usable.

The most serious evil — because most fundamental — is the general point of view toward education that is shown in this list. In the first place, there is the assumption here that the value of instruction should be judged on the basis of the elements that immediately compose it.

Educators get a hint of the inadequacy of this plan by their experience in filling out recommendation blanks from teachers' agencies. Striking facts about the performance of that task are the rapidity and thoughtlessness with which it is usually done and the worthlessness of the statements made.

But instruction cannot be safely judged on the basis of the factors that compose it. We judge of a house by considering the purposes for which it was built. We judge of a machine in the same way, and even of an oration. Instruction should be rated in a similar manner. As stated in the discussion of standards for judging the quality of teaching (pp. 5 *et seq.*), the main purposes to be accom-

plished must form the standards by which its excellence shall be determined. The purposes suggested in that connection were: (1) the cultivation of ambitions, purposes, or motives on the part of children; (2) the organization of subject-matter; (3) the weighing of relative values among facts; (4) and, finally, the exercise of initiative or self-reliance on their part.

A hasty perusal shows how completely this list of seventeen points fails to suggest any of the purposes of teaching. The defect, then, is not so much that the list is incomplete, as that such elements of instruction are not the principal things to observe. A detailed list might occasionally be used by a supervisor for reference, simply to make sure that he was not entirely overlooking some of the minor things in teaching; but that is probably as far as its value reaches.

The queries suggested in this list can be easily, and perhaps correctly, answered by a supervisor with almost no study. And even though the answers be correct, the main features of the teaching, whether good or bad, may still have been ignored. The explanation is that the things that decide the quality of instruction are found in the relation that *its elements bear to its purposes*; and we may see its elements clearly without considering this relationship, just as one may clearly understand the meaning of every sentence in a paragraph without grasping its central thought.

Thirty years ago, certain teachers of geography in a western state took great pride in their board work in geography; in the drawing of a continent, for example, location was accurately determined by numerous parallels of latitude and by meridians; the coast line was made very heavy by rolling the chalk on its sharp edge against the board, and then the coast was shaded by at least a dozen carefully drawn lines. It was excellent board work, one map often requiring several hours. In fact, it was too good; and in one case the board of trustees forbade the practise, on the ground that the purposes of the instruction did not

warrant so much work of that sort. The teachers had become so absorbed in the details, that they had forgotten what the details were for. The writer calls to mind a certain recitation that was rated as admirable by a number of experienced superintendents, until they turned their attention from the teacher's manner, and from the details of the process, to the *objects* that it was supposed to accomplish. Then it was discovered that it had not accomplished the purposes of a literature recitation, and also that it had not accomplished those of a recitation in reading, although it had avowedly been a recitation in one or the other. It was, accordingly, finally judged a failure. The same thing happens with many a recitation that seems good in its details. Similarly, some recitations that seem poor in their elements are found to be excellent when judged in the light of their principal purposes.

The very ease with which this New York City blank can be filled out should make one suspicious of its worth. The judging of instruction is not so mechanical a task, nor so simple. One must approach a recitation with the main objects in mind that the recitation is to accomplish, and ever hold them in mind; that is the first requisite; then one must trace the connection between the means adopted and these ends. That is a task that varies greatly with each study and with almost every new recitation, and one that almost always requires careful study.

This New York City list, therefore, has an injurious effect on the supervision of the elementary schools, because it influences the principal — who must assist the district superintendent in evaluating instruction — to judge the worth of teaching, without reference to the standards that determine worth; and, by keeping this up, he becomes so occupied with the details of instruction that he loses sight of the very purposes of instruction, and of the school as a whole. One of the striking facts about the elementary schools here is the disregard of the higher aims of instruction. Furthermore, any principal or superintendent who

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spends much of his time marking teachers on the basis of such a detailed list — not having approached his task in a way that compels him to think deeply — will become less thoughtful every year, until he will cease to be a leader.

There is another peculiarity of this list that is almost as serious as its superficiality, and that is its strong suggestion that instruction is to be judged almost solely in terms of what the teacher does. It is the *teacher's* self-control and manners; the *teacher's* skill in blackboard work; the *teacher's* use of English; the *teacher's* personal tidiness; the *teacher's* power, accuracy, etc., etc., that shall be considered. Now, why should the teacher thus be the whole object of attention? If the children's conduct is the thing we are after, why should not that be the primary object of consideration in class? In other words, instruction in the main should be judged in terms, not of what the teacher does, but of what the child does. The principal standard for judging instruction, therefore, should consist of an enumeration of its few leading purposes; and these should be expressed in terms of the pupil's activity. It is the *children's* motives that we are primarily interested in; the *children's* organization of ideas, their weighing of values, and their exercise of initiative.

Here, then, is the situation in these elementary schools. Independently of the principal the rating of his teachers is made very prominent. The basis of this rating directs the attention of all concerned away from the aims of instruction to its details alone; and it is stated in terms of the teacher's activity, not of the pupil's. If a high-minded, progressive principal takes charge of a school, determined to improve his teachers, he has the task of focusing their attention away from these examinations, away from the details of this list, to the high objects of teaching, and away from their own activity to that of their pupils'. Here is a partial explanation of the fact that instruction in the city is on so low a plane.

5. LACK OF THEORY AS TO METHOD OF SUPERVISING

An additional point throwing light on the efficiency of supervision by principals is found in the extent to which the theory of supervision appears to be developed among them. But it should be remembered that if there is a lack of such theory, they are no worse off than most principals elsewhere, since there is little literature bearing on the subject. Going directly to the root of the matter — if the principals as a body were asked the question, “What plan have you for the preservation and development of the individuality of your teachers, so that they in turn can the better preserve and develop the individuality of their pupils?” a very great majority of them — so far as the observations of the visitors allow a conclusion — would have practically no answer.

The use of model teaching by principals has already been mentioned. Further improvement of teachers by a principal is usually based on observation of their teaching. The little use made of such observation as a source of valuable material for conferences with the entire corps of teachers has already been referred to (page 183). Yet it should be remembered that the want of well-developed plans in this respect is not altogether chargeable against the principals themselves. Administrative detail is ever pressing upon them; indeed, so much of it is communicated to them by their superior officers with the object of its being communicated to the teachers that, when principals find the teachers together, they cannot easily avoid the temptation to occupy the time with office routine.

But the possibilities of the improvement of teachers through supervision that aims at discussion of their instruction — much of it individual discussion — are great. What theory prevails among the principals in regard to that kind of supervision?

Let us first see what some of the theory might be, irrespective of actual conditions.

There is one plan of observation and discussion that may, perhaps, most suitably be called *intensive*. According to it, the supervisor, impressed with the fact that thirty minutes of instruction involves a good share of all the factors that there are in teaching — just as a thirty-minute interview with a man will reveal a good share of all the factors in his character — makes the whole of a recitation his smallest unit of observation, during a good portion of his visits with teachers. And, desiring to impress his teachers with his conception of the magnitude of a single instruction period, he subjects each one that he witnesses to study, endeavoring to discover how it was related to the aims and principles of education, wherein it was strong, wherein weak, and how it might have been improved. Such questions can seldom be answered offhand. And, in trying to achieve the end he has in view, he remembers that he is also a teacher, in this case a teacher of teachers, and therefore subject to the same general requirements of good presentation in his discussions of recitations to which the teacher herself is subject in class.

In the *first* place, then, his criticism will be as adverse as the situation requires; but it must also be constructive. Earnest teachers are not seeking mere praise; they want help. And they will raise no objection to adverse criticism, if valuable constructive criticism follows.

Second: The criticisms offered, both adverse and constructive, are helpful largely to the extent that they are based on reasons — such as aims and principles of education — rather than on personal authority. To ignore this fact and base statements on personal opinion quickly arouses antagonism and defeats the objects aimed at.

Third: Since the principal is desiring to influence the teacher's conduct in class, he has chosen a most difficult task, and his ideas must be presented with all possible force. They must, therefore, be so arranged that all those bearing upon a particular point are brought together in good sequence; there must be enough of them, too, to produce a

cumulative effect. And all of them, taken together, must be so ordered that the main suggestions seem few and simple. In short, the principal's ideas must be so *organized* as to produce conviction.

Fourth: The lecture form of presentation is as unfitting for him as for the teachers. The teacher does not care to be lectured to; that is too unpedagogical and undemocratic. Hence the principal should raise questions and participate in the answers through discussion.

So much for a very brief outline of the theory. This is the plan of helping teachers followed more or less closely in some of our training schools for teachers, and it is probably the most effective one there is. The objection to it is that it involves much work for the principal. But, strange to say, that is its advantage. It presupposes that the principal, by virtue of his position, must be a real student of instruction. And that is what the great mass of principals are *not*. Even if a man is thoroughly progressive at the time he takes a position as principal or superintendent, unless he adopts a plan of supervision that compels him to study instruction intently, he gradually loses what grip he originally had on real education and becomes a business manager, though still called an educator.

This plan of supervision is not entirely unknown in New York City, but we have seen no indication that it is generally accepted even as an ideal.

There is another plan, most suitably called *extensive* in contrast with the preceding, according to which the principal takes for his unit of study not the whole recitation, but some important feature of it, such as the form of the teacher's questions, or the proper use of voice, or clear enunciation, or the fulness of responses by children. According to that plan a principal may remain with one teacher only long enough to observe her practise in this one respect; then he may talk over the observations made, under the influence of the same standards, as to his method, as in the former case. This method accords more fully with

the established habit in New York City of principals moving at short intervals from room to room, and it seems wider in scope as well as easier. But to the extent that it is easier it is likely to be more superficial. For constructive criticism of many of these seemingly easy single features requires the observation of the whole recitation together with much study afterward. For example, take the form of a teacher's questions. By listening only a few moments to a teacher the principal may observe that her questions are poor. But if he desires to show her what the leading half-dozen questions in the teaching of a given topic should actually be, he must make a careful study of that whole topic, and one of the best helps for that is for him to hear the entire recitation as the teacher conducts it.

This plan is occasionally advocated by a principal in New York City, but it is not widely prevalent.

The theory of supervision — so far as there is one — that tends most fully to prevail can be most clearly understood by an illustration. A principal conducted the visitor through six classes, remaining on the average perhaps six to seven minutes in each. At the end of that time the visitor felt confused as to what could possibly have been accomplished by the principal's visits, the visitor himself having seen too little of nearly every recitation even to judge its quality, to say nothing of giving constructive criticisms upon it. But discussion greatly cleared the confusion, as is shown by the following conversation at the close: Visitor — "Is this, then, your plan? In the teaching of a topic there is a certain series of steps to go through, an established procedure to follow, and you have instructed your teachers until they understand what that series or procedure is?" Principal — "Yes, that is it exactly." Visitor — "Then by visiting a teacher only a very few minutes, you can tell whether or not she is following that series, and can consequently judge how the work is going?" Principal — "Yes, that is just it." Visitor — "What portion, perhaps, of all

the instruction in your school can be judged in this way?" Principal — "Perhaps one half of it."

A visit to one of the rooms — a third grade — in which the pupils were memorizing a poem had helped to illustrate this plan. To the visitor the young teacher had seemed to be doing reasonably well. But the principal, after perhaps two minutes of observation, appearing to be dissatisfied, himself took charge of the class and taught for ten to fifteen minutes. Afterward, when asked by the visitor why he had taken the class, he replied, in substance: "Did you not observe that the teacher was standing in the back part of the room? A teacher, when a class is memorizing, should never stand in the back part of the room except (a), (b), (c). (The writer remembers that there were three exceptions, although what they were he cannot recall.) Then did you not observe that the stanza had not been written on the blackboard? It is one of my rules that the gem to be memorized shall be placed on the board in front of the class, so that all eyes can be looking in the same direction at one time." (Each child had the poem in hand in print in his text-book at the time.) The principal on taking charge of the class had immediately placed himself in front of it, had asked the teacher to write the stanza on the board, and had then proceeded through six to seven more "steps," which could be included here did they not take up too much space. A type-written copy of the entire procedure — the same as had been furnished to the teachers — was handed to the visitor before his leaving the building.

Here, then, is a theory of supervision according to which all teachers, after having been instructed to teach a given topic in the same detailed way, are tested by the principals' visits as to their faithfulness in following that method.

While no one theory of supervision can be said to be general in New York City, and while the writer has not personally discovered a large number of principals devoted to this plan, there are reasons for believing it to be the most generally accepted plan in the city.

One of these reasons is that the syllabi issued by the Board of Superintendents, who determine the controlling educational theories for the entire system to a remarkable degree, hold out, as already stated (page 158), such uniformity of method as a duty. A second reason is that the district superintendents, if not unanimously in favor of such uniformity, still individually not only support these recommendations of the syllabi by insisting upon them in practise, but they also freely add others of the same kind to them. A third reason is that great numbers of teachers assert that obedience on their part is their prime virtue in the eyes of their superior officers; and the fact that "ability to comprehend instructions" — which, according to the teachers, includes "willingness to obey," between the lines — heads the list of points on which their success is rated and their salaries determined, lends color to this assertion.

In brief, uniformity — of curriculum, and also of method — is at a great premium in New York City. And in consequence it is natural to expect to find the theory of supervision by principals based on that idea.

The extent to which this plan really helps the teacher to give expression to her own individuality and thus improve her in a fundamental way needs no extensive discussion.

Neither the voluntary reports sent by the principals to the Board of Superintendents in the last five years nor the reports called for by the Board in that time show concern about either the theory or practise of supervision of instruction in the city.

CHAPTER XV

CONCLUSIONS AS TO SUPERVISION BY PRINCIPALS

WHILE the main effort of a principal of a school should be directed to the improvement of the instruction, the main efforts of principals in New York City are directed to other matters than instruction. Most of the principals themselves readily admit this.

Assuming that principals, in the time that they do devote to the supervision of instruction, are under obligations to improve teachers in their instruction, we have found through observation of principals and interviews with them that generally they are in the habit of spending very few minutes at any one time with any one teacher; that as a rule no remarks are made to the teacher about the work observed; and that what remarks are made are extremely brief, unstudied, unorganized, and little related to the aims and principles of education; and therefore that the principals are not supervising in a way that shows them to be real students of instruction or that greatly aids the teachers.

Through interviews with teachers we have found that they very commonly deny having received positive aid in instruction from their principals, either separately or collectively, and there is a strong tendency for them to deny also that freedom of discussion is allowed them.

The details on which these conclusions have been based have been verified by a study of several factors that necessarily greatly influence the extent and quality of supervision by principals. There are five of these factors.

The *first* pertains to the prominence of administrative

duties. It has been found that little distinction has been made in practise between these duties and the supervising duties of principals, so that principals might be on their guard against subordinating the latter to the former; and that, even if they were thus put on their guard, the number of administrative duties is at present so great that it is next to impossible not to allow them to consume most of the principal's time.

Second, the great size of many of the schools makes the situation worse than it would otherwise be. In the larger schools the pressure upon the principal to confine himself to administration of business matters is greater than ever, while supervision by assistant principals is necessarily less effective than that by principals.

Third, so little authority is allowed to principals in regard to curriculum, time allotment for each study, and method of teaching, owing to the authoritative way in which these matters are presented in the printed curriculum and syllabi, that an able principal is even restrained from adapting the instruction to his particular pupils.

The principal is further hampered by the fact that there is a decided tendency to regard the district superintendent, rather than the principal, as the really active head of each school, while, so far as the special subjects are concerned, the principal is even more plainly a subordinate to the supervisors of those subjects.

Finally, the principals bear no relation to their superior officers that allows them to make recommendations to these officers to which the latter are under obligations to reply.

On account of these conditions the lack of authority among principals seriously interferes with their efficiency.

Fourth, the frequency with which teachers must be rated makes examinations of them unnecessarily prominent. The basis on which the rating is made is of such a character that it necessarily directs the attention of teachers to the details of instruction rather than to its purposes, and to the teachers themselves rather than to the children; and the share that

the principal must take in this rating tends to unfit him for broad educational leadership.

Fifth. There is a serious lack of theory among the principals as to how the work of supervising instruction should be undertaken. The theory that seems most to prevail is based on the idea that the degree of uniformity secured is one important measure of the excellence attained; and there is little study of the method of supervising, although it is the most important work of the principal.

Each one of these five facts — namely, the overemphasis of administrative duties; the great size of many of the schools; the want of authority among principals; the prominence of examinations of teachers, together with the poor basis on which they are conducted; and the lack of theory as to method of supervising — each one of these is a factor that seriously influences the quality of supervision by the principals, and each one of them tends to prevent excellence in this field. Thus all five tend strongly to verify the impression previously reached in regard to the character of supervision by principals, obtained by observation of principals engaged in supervising and by consultation with both principals and teachers.

Attention may well be called, again, to the fact that there are numerous exceptions to almost every one of these general statements. All that has been attempted has been to discover what ideas and practises most generally prevail, and to set them forth. A considerable number of principals, who are either not oppressed by these obstacles, or at least find them not insurmountable, are performing the work of supervision in a very effective manner. But to overcome or ignore these restraints involves personal risk on their part and requires an extra degree of ability, independence, and energy. The majority of principals are not seriously to blame if they fail to show these qualities. It is the duty of the higher school authorities to establish conditions highly *favorable* to proper supervision by principals, rather than those positively inimical to it.

CHAPTER XVI

RECOMMENDATIONS AS TO SUPERVISION BY PRINCIPALS

IN view of the foregoing considerations we make the following recommendations:

I. ON CLASSIFICATION OF PRINCIPALS' DUTIES

The manifold duties of principals should be classified into three groups: (1) those that are purely clerical; (2) those that concern instruction more or less, but that largely concern routine, and therefore require little special ability; (3) those that require the technical ability of the educational specialist. Such classification having been effected, the simpler tasks in (1) and (2) should be assigned to minor officials in such a way that the principal has very little responsibility in regard to them. Then a very definite understanding should be reached that the principal shall identify himself primarily with the duties listed in group (3).

2. ON SIZE OF SCHOOLS

The present tendency to increase the size of schools—there are now nearly one hundred teachers in some of the elementary schools—should be positively checked, and a desirable size should be agreed upon for the future, possibly not exceeding thirty teachers. Also, some of the large schools should—when the arrangement of the building permits—be divided into separate schools.

3. ON EXTENT OF AUTHORITY TO BE GRANTED TO PRINCIPALS

The principal should be made the real, not merely the nominal, head of his school. To this end he and his teachers should take the initiative in making the curriculum in all subjects for their school. The syllabi should discuss methods in a way that will in no sense tend to tie his hands or those of his teachers.

A definite avenue of approach to his superior officers should be established, so that recommendations that express the consensus of opinion of principals and that are forwarded to these officers shall command careful consideration and full reply within reasonable time.

4. ON FREQUENCY AND BASIS OF TESTS OF TEACHERS

The frequency with which teachers are now rated should be reduced, and the basis on which the rating takes place should be radically modified.

5. ON DEVELOPMENT OF A THEORY OF SUPERVISION BY PRINCIPALS

The idea should be established that a school is good to the extent that its individual conditions are met, not to the extent that its plan of procedure duplicates that of other schools. With this idea established, principals should be held responsible for developing a theory of supervision, and its content should be revealed (a) to teachers by the effective manner in which they are aided through its means, and (b) to the superior school officials by reports on this subject.

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